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1 ssh://root@103.254.67.181:10006/usr/bin/python -u /home/
  sunfengzhen/pycharm/dadi_typhoon/run.py
2 Using TensorFlow backend.
3 work mode train
4 train_size 176
5 txt_path dataset/Train/Track/Track.txt
6 type typhoon_seq <type 'numpy.ndarray'>
7 typhoon_seq.shape (176, 16, 5)
8 i_max_val 6.0
9 i_min_val 0.0
10 lat_max_val 485.0
11 lat_min_val 92.0
12 lon_max_val 1885.0
13 lon_min_val 1052.0
14 press_max_val 1010.0
15 press_min_val 888.0
16 wnd_max_val 72.0
17 wnd_min_val 10.0
18 trainX.shape: (166, 4, 5)
19 trainY.shape: (166, 4, 2)
20 validX.shape: (10, 4, 5)
21 validY.shape: (10, 4, 2)
22 trainX[0]
23 [[0.33333333 0.56743003 0.74669868 0.32786885 0.59677419]
24 [0.33333333 0.54452926 0.74909964 0.32786885 0.59677419]
25 [0.33333333 0.5216285 0.74429772 0.32786885 0.59677419]
26 [0.33333333 0.49363868 0.73829532 0.36885246 0.59677419]]
27 trainY[0]
28 : [[0.45292621 0.73109244]
29 [0.40712468 0.72869148]
30 [0.36132316 0.72869148]
31 [0.32061069 0.7214886 ]]
32 hello world
33 #####model build#####
34
35 Layer (type)                Output Shape                Param #
36 =====

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37 LSTM_Layer01 (LSTM)                (None, 4, 64)                17920
38
39 batch_normalization_1 (Batch Normalization) (None, 4, 64)                256
40
41 LSTM_Layer02 (LSTM)                (None, 4, 2)                  536
42
43 batch_normalization_2 (Batch Normalization) (None, 4, 2)                  8
44 =====
45 Total params: 18,720
46 Trainable params: 18,588
47 Non-trainable params: 132
48
49 model.input= Tensor("LSTM_Layer01_input:0", shape=(?, 4, 5),
dtype=float32)
50 model.input.name= LSTM_Layer01_input:0
51 model.input.shape= (?, 4, 5)
52 model.output= Tensor("batch_normalization_2/cond/Merge:0", shape
=(?, ?, 2), dtype=float32)
53 model.output.name= batch_normalization_2/cond/Merge:0
54 model.output.shape= (?, ?, 2)
55 #####model train#####
56 model.metrics_names = ['loss', 'mean_squared_error']
57 Train on 166 samples, validate on 10 samples
58 Epoch 1/10000
59 2019-09-23 06:06:14.806662: I tensorflow/core/platform/
cpu_feature_guard.cc:141] Your CPU supports instructions that
this TensorFlow binary was not compiled to use: AVX2 FMA
60 2019-09-23 06:06:15.043934: I tensorflow/core/common_runtime/gpu/
gpu_device.cc:1432] Found device 0 with properties:
61 name: GeForce GTX 1080 Ti major: 6 minor: 1 memoryClockRate(GHz
): 1.582
62 pciBusID: 0000:82:00.0
63 totalMemory: 10.92GiB freeMemory: 10.76GiB
64 2019-09-23 06:06:15.043981: I tensorflow/core/common_runtime/gpu/
gpu_device.cc:1511] Adding visible gpu devices: 0
65 2019-09-23 06:06:15.405051: I tensorflow/core/common_runtime/gpu/
gpu_device.cc:982] Device interconnect StreamExecutor with

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65 strength 1 edge matrix:
66 2019-09-23 06:06:15.405121: I tensorflow/core/common_runtime/gpu
  /gpu_device.cc:988] 0
67 2019-09-23 06:06:15.405133: I tensorflow/core/common_runtime/gpu
  /gpu_device.cc:1001] 0: N
68 2019-09-23 06:06:15.405546: I tensorflow/core/common_runtime/gpu
  /gpu_device.cc:1115] Created TensorFlow device (/job:localhost/
  replica:0/task:0/device:GPU:0 with 10409 MB memory) -> physical
  GPU (device: 0, name: GeForce GTX 1080 Ti, pci bus id: 0000:82:
  00.0, compute capability: 6.1)
69 - 3s - loss: 1.1483 - mean_squared_error: 1.1483 - val_loss: 2.
  6772 - val_mean_squared_error: 2.6772
70 epoch_end_callback epoch 0 lr 0.001
71 Epoch 2/10000
72 - 1s - loss: 0.6761 - mean_squared_error: 0.6761 - val_loss: 0.
  8666 - val_mean_squared_error: 0.8666
73 epoch_end_callback epoch 1 lr 0.001
74 Epoch 3/10000
75 - 1s - loss: 0.4519 - mean_squared_error: 0.4519 - val_loss: 0.
  9470 - val_mean_squared_error: 0.9470
76 epoch_end_callback epoch 2 lr 0.001
77 Epoch 4/10000
78 - 1s - loss: 0.3824 - mean_squared_error: 0.3824 - val_loss: 0.
  9296 - val_mean_squared_error: 0.9296
79 epoch_end_callback epoch 3 lr 0.001
80 Epoch 5/10000
81 - 1s - loss: 0.3466 - mean_squared_error: 0.3466 - val_loss: 0.
  4457 - val_mean_squared_error: 0.4457
82 epoch_end_callback epoch 4 lr 0.001
83 Epoch 6/10000
84 - 1s - loss: 0.3146 - mean_squared_error: 0.3146 - val_loss: 0.
  4993 - val_mean_squared_error: 0.4993
85 epoch_end_callback epoch 5 lr 0.001
86 Epoch 7/10000
87 - 1s - loss: 0.2782 - mean_squared_error: 0.2782 - val_loss: 0.
  3312 - val_mean_squared_error: 0.3312
88 epoch_end_callback epoch 6 lr 0.001
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89 Epoch 8/10000
90   - 1s - loss: 0.2565 - mean_squared_error: 0.2565 - val_loss: 0.
1571 - val_mean_squared_error: 0.1571
91 epoch_end_callback epoch 7 lr 0.001
92 Epoch 9/10000
93   - 1s - loss: 0.2291 - mean_squared_error: 0.2291 - val_loss: 0.
2045 - val_mean_squared_error: 0.2045
94 epoch_end_callback epoch 8 lr 0.001
95 Epoch 10/10000
96   - 1s - loss: 0.2071 - mean_squared_error: 0.2071 - val_loss: 0.
1662 - val_mean_squared_error: 0.1662
97
98 Epoch 00010: saving model to model/model_best.h5
99 epoch_end_callback epoch 9 lr 0.001
100 Epoch 11/10000
101   - 1s - loss: 0.1852 - mean_squared_error: 0.1852 - val_loss: 0.
1300 - val_mean_squared_error: 0.1300
102 epoch_end_callback epoch 10 lr 0.001
103 Epoch 12/10000
104   - 1s - loss: 0.1648 - mean_squared_error: 0.1648 - val_loss: 0.
1536 - val_mean_squared_error: 0.1536
105 epoch_end_callback epoch 11 lr 0.001
106 Epoch 13/10000
107   - 1s - loss: 0.1500 - mean_squared_error: 0.1500 - val_loss: 0.
1548 - val_mean_squared_error: 0.1548
108 epoch_end_callback epoch 12 lr 0.001
109 Epoch 14/10000
110   - 1s - loss: 0.1325 - mean_squared_error: 0.1325 - val_loss: 0.
1573 - val_mean_squared_error: 0.1573
111 epoch_end_callback epoch 13 lr 0.001
112 Epoch 15/10000
113   - 1s - loss: 0.1193 - mean_squared_error: 0.1193 - val_loss: 0.
1157 - val_mean_squared_error: 0.1157
114 epoch_end_callback epoch 14 lr 0.001
115 Epoch 16/10000
116   - 1s - loss: 0.1076 - mean_squared_error: 0.1076 - val_loss: 0.
5905 - val_mean_squared_error: 0.5905
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117 epoch_end_callback epoch 15 lr 0.001
118 Epoch 17/10000
119 - 1s - loss: 0.0950 - mean_squared_error: 0.0950 - val_loss: 0.
1123 - val_mean_squared_error: 0.1123
120 epoch_end_callback epoch 16 lr 0.001
121 Epoch 18/10000
122 - 1s - loss: 0.0842 - mean_squared_error: 0.0842 - val_loss: 0.
1006 - val_mean_squared_error: 0.1006
123 epoch_end_callback epoch 17 lr 0.001
124 Epoch 19/10000
125 - 1s - loss: 0.0764 - mean_squared_error: 0.0764 - val_loss: 0.
0783 - val_mean_squared_error: 0.0783
126 epoch_end_callback epoch 18 lr 0.001
127 Epoch 20/10000
128 - 1s - loss: 0.0646 - mean_squared_error: 0.0646 - val_loss: 0.
2765 - val_mean_squared_error: 0.2765
129
130 Epoch 00020: saving model to model/model_best.h5
131 epoch_end_callback epoch 19 lr 0.001
132 Epoch 21/10000
133 - 1s - loss: 0.0585 - mean_squared_error: 0.0585 - val_loss: 0.
0406 - val_mean_squared_error: 0.0406
134 epoch_end_callback epoch 20 lr 0.001
135 Epoch 22/10000
136 - 1s - loss: 0.0498 - mean_squared_error: 0.0498 - val_loss: 0.
0262 - val_mean_squared_error: 0.0262
137 epoch_end_callback epoch 21 lr 0.001
138 Epoch 23/10000
139 - 1s - loss: 0.0435 - mean_squared_error: 0.0435 - val_loss: 0.
0341 - val_mean_squared_error: 0.0341
140 epoch_end_callback epoch 22 lr 0.001
141 Epoch 24/10000
142 - 1s - loss: 0.0384 - mean_squared_error: 0.0384 - val_loss: 0.
0162 - val_mean_squared_error: 0.0162
143 epoch_end_callback epoch 23 lr 0.001
144 Epoch 25/10000
145 - 1s - loss: 0.0329 - mean_squared_error: 0.0329 - val_loss: 0.
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145 0333 - val_mean_squared_error: 0.0333
146 epoch_end_callback epoch 24 lr 0.001
147 Epoch 26/10000
148 - 1s - loss: 0.0297 - mean_squared_error: 0.0297 - val_loss: 0.
0111 - val_mean_squared_error: 0.0111
149 epoch_end_callback epoch 25 lr 0.001
150 Epoch 27/10000
151 - 1s - loss: 0.0251 - mean_squared_error: 0.0251 - val_loss: 0.
1607 - val_mean_squared_error: 0.1607
152 epoch_end_callback epoch 26 lr 0.001
153 Epoch 28/10000
154 - 1s - loss: 0.0216 - mean_squared_error: 0.0216 - val_loss: 0.
1099 - val_mean_squared_error: 0.1099
155 epoch_end_callback epoch 27 lr 0.001
156 Epoch 29/10000
157 - 1s - loss: 0.0193 - mean_squared_error: 0.0193 - val_loss: 0.
0789 - val_mean_squared_error: 0.0789
158 epoch_end_callback epoch 28 lr 0.001
159 Epoch 30/10000
160 - 1s - loss: 0.0179 - mean_squared_error: 0.0179 - val_loss: 0.
0132 - val_mean_squared_error: 0.0132
161
162 Epoch 00030: saving model to model/model_best.h5
163 epoch_end_callback epoch 29 lr 0.001
164 Epoch 31/10000
165 - 1s - loss: 0.0154 - mean_squared_error: 0.0154 - val_loss: 0.
1036 - val_mean_squared_error: 0.1036
166 epoch_end_callback epoch 30 lr 0.001
167 Epoch 32/10000
168 - 1s - loss: 0.0138 - mean_squared_error: 0.0138 - val_loss: 0.
0273 - val_mean_squared_error: 0.0273
169 epoch_end_callback epoch 31 lr 0.001
170 Epoch 33/10000
171 - 1s - loss: 0.0122 - mean_squared_error: 0.0122 - val_loss: 0.
0103 - val_mean_squared_error: 0.0103
172 epoch_end_callback epoch 32 lr 0.001
173 Epoch 34/10000
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174 - 1s - loss: 0.0117 - mean_squared_error: 0.0117 - val_loss: 0.
    0664 - val_mean_squared_error: 0.0664
175 epoch_end_callback epoch 33 lr 0.001
176 Epoch 35/10000
177 - 1s - loss: 0.0114 - mean_squared_error: 0.0114 - val_loss: 0.
    0204 - val_mean_squared_error: 0.0204
178 epoch_end_callback epoch 34 lr 0.001
179 Epoch 36/10000
180 - 1s - loss: 0.0102 - mean_squared_error: 0.0102 - val_loss: 0.
    0128 - val_mean_squared_error: 0.0128
181 epoch_end_callback epoch 35 lr 0.001
182 Epoch 37/10000
183 - 1s - loss: 0.0103 - mean_squared_error: 0.0103 - val_loss: 0.
    0362 - val_mean_squared_error: 0.0362
184 epoch_end_callback epoch 36 lr 0.001
185 Epoch 38/10000
186 - 1s - loss: 0.0101 - mean_squared_error: 0.0101 - val_loss: 0.
    0200 - val_mean_squared_error: 0.0200
187 epoch_end_callback epoch 37 lr 0.001
188 Epoch 39/10000
189 - 1s - loss: 0.0098 - mean_squared_error: 0.0098 - val_loss: 0.
    0438 - val_mean_squared_error: 0.0438
190 epoch_end_callback epoch 38 lr 0.001
191 Epoch 40/10000
192 - 1s - loss: 0.0095 - mean_squared_error: 0.0095 - val_loss: 0.
    0226 - val_mean_squared_error: 0.0226
193
194 Epoch 00040: saving model to model/model_best.h5
195 epoch_end_callback epoch 39 lr 0.001
196 Epoch 41/10000
197 - 1s - loss: 0.0093 - mean_squared_error: 0.0093 - val_loss: 0.
    0377 - val_mean_squared_error: 0.0377
198 epoch_end_callback epoch 40 lr 0.001
199 Epoch 42/10000
200 - 1s - loss: 0.0092 - mean_squared_error: 0.0092 - val_loss: 0.
    0231 - val_mean_squared_error: 0.0231
201 epoch_end_callback epoch 41 lr 0.001
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202 Epoch 43/10000
203   - 1s - loss: 0.0089 - mean_squared_error: 0.0089 - val_loss: 0.
    0329 - val_mean_squared_error: 0.0329
204 epoch_end_callback epoch 42 lr 0.001
205 Epoch 44/10000
206   - 1s - loss: 0.0091 - mean_squared_error: 0.0091 - val_loss: 0.
    0297 - val_mean_squared_error: 0.0297
207 epoch_end_callback epoch 43 lr 0.001
208 Epoch 45/10000
209   - 1s - loss: 0.0090 - mean_squared_error: 0.0090 - val_loss: 0.
    0340 - val_mean_squared_error: 0.0340
210 epoch_end_callback epoch 44 lr 0.001
211 Epoch 46/10000
212   - 1s - loss: 0.0090 - mean_squared_error: 0.0090 - val_loss: 0.
    0209 - val_mean_squared_error: 0.0209
213 epoch_end_callback epoch 45 lr 0.001
214 Epoch 47/10000
215   - 1s - loss: 0.0085 - mean_squared_error: 0.0085 - val_loss: 0.
    0176 - val_mean_squared_error: 0.0176
216 epoch_end_callback epoch 46 lr 0.001
217 Epoch 48/10000
218   - 1s - loss: 0.0086 - mean_squared_error: 0.0086 - val_loss: 0.
    0173 - val_mean_squared_error: 0.0173
219 epoch_end_callback epoch 47 lr 0.001
220 Epoch 49/10000
221   - 1s - loss: 0.0084 - mean_squared_error: 0.0084 - val_loss: 0.
    0162 - val_mean_squared_error: 0.0162
222 epoch_end_callback epoch 48 lr 0.001
223 Epoch 50/10000
224   - 1s - loss: 0.0084 - mean_squared_error: 0.0084 - val_loss: 0.
    0149 - val_mean_squared_error: 0.0149
225
226 Epoch 00050: saving model to model/model_best.h5
227 epoch_end_callback epoch 49 lr 0.001
228 Epoch 51/10000
229   - 1s - loss: 0.0084 - mean_squared_error: 0.0084 - val_loss: 0.
    0187 - val_mean_squared_error: 0.0187
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230 epoch_end_callback epoch 50 lr 0.001
231 Epoch 52/10000
232 - 1s - loss: 0.0082 - mean_squared_error: 0.0082 - val_loss: 0.
    0149 - val_mean_squared_error: 0.0149
233 epoch_end_callback epoch 51 lr 0.001
234 Epoch 53/10000
235 - 1s - loss: 0.0080 - mean_squared_error: 0.0080 - val_loss: 0.
    0165 - val_mean_squared_error: 0.0165
236 epoch_end_callback epoch 52 lr 0.001
237 Epoch 54/10000
238 - 1s - loss: 0.0080 - mean_squared_error: 0.0080 - val_loss: 0.
    0168 - val_mean_squared_error: 0.0168
239 epoch_end_callback epoch 53 lr 0.001
240 Epoch 55/10000
241 - 1s - loss: 0.0079 - mean_squared_error: 0.0079 - val_loss: 0.
    0162 - val_mean_squared_error: 0.0162
242 epoch_end_callback epoch 54 lr 0.001
243 Epoch 56/10000
244 - 1s - loss: 0.0079 - mean_squared_error: 0.0079 - val_loss: 0.
    0158 - val_mean_squared_error: 0.0158
245 epoch_end_callback epoch 55 lr 0.001
246 Epoch 57/10000
247 - 1s - loss: 0.0078 - mean_squared_error: 0.0078 - val_loss: 0.
    0259 - val_mean_squared_error: 0.0259
248 epoch_end_callback epoch 56 lr 0.001
249 Epoch 58/10000
250 - 1s - loss: 0.0077 - mean_squared_error: 0.0077 - val_loss: 0.
    0248 - val_mean_squared_error: 0.0248
251 epoch_end_callback epoch 57 lr 0.001
252 Epoch 59/10000
253 - 1s - loss: 0.0077 - mean_squared_error: 0.0077 - val_loss: 0.
    0192 - val_mean_squared_error: 0.0192
254 epoch_end_callback epoch 58 lr 0.001
255 Epoch 60/10000
256 - 1s - loss: 0.0076 - mean_squared_error: 0.0076 - val_loss: 0.
    0171 - val_mean_squared_error: 0.0171
257
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258 Epoch 00060: saving model to model/model_best.h5
259 epoch_end_callback epoch 59 lr 0.001
260 Epoch 61/10000
261   - 1s - loss: 0.0076 - mean_squared_error: 0.0076 - val_loss: 0.
    0155 - val_mean_squared_error: 0.0155
262 epoch_end_callback epoch 60 lr 0.001
263 Epoch 62/10000
264   - 1s - loss: 0.0076 - mean_squared_error: 0.0076 - val_loss: 0.
    0127 - val_mean_squared_error: 0.0127
265 epoch_end_callback epoch 61 lr 0.001
266 Epoch 63/10000
267   - 1s - loss: 0.0075 - mean_squared_error: 0.0075 - val_loss: 0.
    0111 - val_mean_squared_error: 0.0111
268 epoch_end_callback epoch 62 lr 0.001
269 Epoch 64/10000
270   - 1s - loss: 0.0075 - mean_squared_error: 0.0075 - val_loss: 0.
    0128 - val_mean_squared_error: 0.0128
271 epoch_end_callback epoch 63 lr 0.001
272 Epoch 65/10000
273   - 1s - loss: 0.0074 - mean_squared_error: 0.0074 - val_loss: 0.
    0102 - val_mean_squared_error: 0.0102
274 epoch_end_callback epoch 64 lr 0.001
275 Epoch 66/10000
276   - 1s - loss: 0.0074 - mean_squared_error: 0.0074 - val_loss: 0.
    0109 - val_mean_squared_error: 0.0109
277 epoch_end_callback epoch 65 lr 0.001
278 Epoch 67/10000
279   - 1s - loss: 0.0073 - mean_squared_error: 0.0073 - val_loss: 0.
    0112 - val_mean_squared_error: 0.0112
280 epoch_end_callback epoch 66 lr 0.001
281 Epoch 68/10000
282   - 1s - loss: 0.0073 - mean_squared_error: 0.0073 - val_loss: 0.
    0105 - val_mean_squared_error: 0.0105
283 epoch_end_callback epoch 67 lr 0.001
284 Epoch 69/10000
285   - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
    0097 - val_mean_squared_error: 0.0097
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286 epoch_end_callback epoch 68 lr 0.001
287 Epoch 70/10000
288 - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
0087 - val_mean_squared_error: 0.0087
289
290 Epoch 00070: saving model to model/model_best.h5
291 epoch_end_callback epoch 69 lr 0.001
292 Epoch 71/10000
293 - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
0085 - val_mean_squared_error: 0.0085
294 epoch_end_callback epoch 70 lr 0.001
295 Epoch 72/10000
296 - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
0079 - val_mean_squared_error: 0.0079
297 epoch_end_callback epoch 71 lr 0.001
298 Epoch 73/10000
299 - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
0075 - val_mean_squared_error: 0.0075
300 epoch_end_callback epoch 72 lr 0.001
301 Epoch 74/10000
302 - 1s - loss: 0.0072 - mean_squared_error: 0.0072 - val_loss: 0.
0077 - val_mean_squared_error: 0.0077
303 epoch_end_callback epoch 73 lr 0.001
304 Epoch 75/10000
305 - 1s - loss: 0.0071 - mean_squared_error: 0.0071 - val_loss: 0.
0079 - val_mean_squared_error: 0.0079
306 epoch_end_callback epoch 74 lr 0.001
307 Epoch 76/10000
308 - 1s - loss: 0.0071 - mean_squared_error: 0.0071 - val_loss: 0.
0085 - val_mean_squared_error: 0.0085
309 epoch_end_callback epoch 75 lr 0.001
310 Epoch 77/10000
311 - 1s - loss: 0.0071 - mean_squared_error: 0.0071 - val_loss: 0.
0079 - val_mean_squared_error: 0.0079
312 epoch_end_callback epoch 76 lr 0.001
313 Epoch 78/10000
314 - 1s - loss: 0.0070 - mean_squared_error: 0.0070 - val_loss: 0.
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314 0080 - val_mean_squared_error: 0.0080
315 epoch_end_callback epoch 77 lr 0.001
316 Epoch 79/10000
317 - 1s - loss: 0.0071 - mean_squared_error: 0.0071 - val_loss: 0.
0076 - val_mean_squared_error: 0.0076
318 epoch_end_callback epoch 78 lr 0.001
319 Epoch 80/10000
320 - 1s - loss: 0.0071 - mean_squared_error: 0.0071 - val_loss: 0.
0070 - val_mean_squared_error: 0.0070
321
322 Epoch 0080: saving model to model/model_best.h5
323 epoch_end_callback epoch 79 lr 0.001
324 Epoch 81/10000
325 - 1s - loss: 0.0070 - mean_squared_error: 0.0070 - val_loss: 0.
0069 - val_mean_squared_error: 0.0069
326 epoch_end_callback epoch 80 lr 0.001
327 Epoch 82/10000
328 - 1s - loss: 0.0070 - mean_squared_error: 0.0070 - val_loss: 0.
0067 - val_mean_squared_error: 0.0067
329 epoch_end_callback epoch 81 lr 0.001
330 Epoch 83/10000
331 - 1s - loss: 0.0070 - mean_squared_error: 0.0070 - val_loss: 0.
0065 - val_mean_squared_error: 0.0065
332 epoch_end_callback epoch 82 lr 0.001
333 Epoch 84/10000
334 - 1s - loss: 0.0070 - mean_squared_error: 0.0070 - val_loss: 0.
0066 - val_mean_squared_error: 0.0066
335 epoch_end_callback epoch 83 lr 0.001
336 Epoch 85/10000
337 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
0063 - val_mean_squared_error: 0.0063
338 epoch_end_callback epoch 84 lr 0.001
339 Epoch 86/10000
340 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
0058 - val_mean_squared_error: 0.0058
341 epoch_end_callback epoch 85 lr 0.001
342 Epoch 87/10000
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343 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0059 - val_mean_squared_error: 0.0059
344 epoch_end_callback epoch 86 lr 0.001
345 Epoch 88/10000
346 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0067 - val_mean_squared_error: 0.0067
347 epoch_end_callback epoch 87 lr 0.001
348 Epoch 89/10000
349 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0056 - val_mean_squared_error: 0.0056
350 epoch_end_callback epoch 88 lr 0.001
351 Epoch 90/10000
352 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0062 - val_mean_squared_error: 0.0062
353
354 Epoch 00090: saving model to model/model_best.h5
355 epoch_end_callback epoch 89 lr 0.001
356 Epoch 91/10000
357 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0058 - val_mean_squared_error: 0.0058
358 epoch_end_callback epoch 90 lr 0.001
359 Epoch 92/10000
360 - 1s - loss: 0.0068 - mean_squared_error: 0.0068 - val_loss: 0.
    0062 - val_mean_squared_error: 0.0062
361 epoch_end_callback epoch 91 lr 0.001
362 Epoch 93/10000
363 - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
    0063 - val_mean_squared_error: 0.0063
364 epoch_end_callback epoch 92 lr 0.001
365 Epoch 94/10000
366 - 1s - loss: 0.0069 - mean_squared_error: 0.0069 - val_loss: 0.
    0053 - val_mean_squared_error: 0.0053
367 epoch_end_callback epoch 93 lr 0.001
368 Epoch 95/10000
369 - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
370 epoch_end_callback epoch 94 lr 0.001
```

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371 Epoch 96/10000
372   - 1s - loss: 0.0068 - mean_squared_error: 0.0068 - val_loss: 0.
0064 - val_mean_squared_error: 0.0064
373 epoch_end_callback epoch 95 lr 0.001
374 Epoch 97/10000
375   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0052 - val_mean_squared_error: 0.0052
376 epoch_end_callback epoch 96 lr 0.001
377 Epoch 98/10000
378   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0055 - val_mean_squared_error: 0.0055
379 epoch_end_callback epoch 97 lr 0.001
380 Epoch 99/10000
381   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0048 - val_mean_squared_error: 0.0048
382 epoch_end_callback epoch 98 lr 0.001
383 Epoch 100/10000
384   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0056 - val_mean_squared_error: 0.0056
385
386 Epoch 00100: saving model to model/model_best.h5
387 epoch_end_callback epoch 99 lr 0.001
388 Epoch 101/10000
389   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0056 - val_mean_squared_error: 0.0056
390 epoch_end_callback epoch 100 lr 0.001
391 Epoch 102/10000
392   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
0055 - val_mean_squared_error: 0.0055
393 epoch_end_callback epoch 101 lr 0.001
394 Epoch 103/10000
395   - 1s - loss: 0.0067 - mean_squared_error: 0.0067 - val_loss: 0.
0047 - val_mean_squared_error: 0.0047
396 epoch_end_callback epoch 102 lr 0.001
397 Epoch 104/10000
398   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
0061 - val_mean_squared_error: 0.0061
```

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399 epoch_end_callback epoch 103 lr 0.001
400 Epoch 105/10000
401   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
402 epoch_end_callback epoch 104 lr 0.001
403 Epoch 106/10000
404   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
405 epoch_end_callback epoch 105 lr 0.001
406 Epoch 107/10000
407   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0044 - val_mean_squared_error: 0.0044
408 epoch_end_callback epoch 106 lr 0.001
409 Epoch 108/10000
410   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0061 - val_mean_squared_error: 0.0061
411 epoch_end_callback epoch 107 lr 0.001
412 Epoch 109/10000
413   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0056 - val_mean_squared_error: 0.0056
414 epoch_end_callback epoch 108 lr 0.001
415 Epoch 110/10000
416   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
417
418 Epoch 00110: saving model to model/model_best.h5
419 epoch_end_callback epoch 109 lr 0.001
420 Epoch 111/10000
421   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0059 - val_mean_squared_error: 0.0059
422 epoch_end_callback epoch 110 lr 0.001
423 Epoch 112/10000
424   - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
    0053 - val_mean_squared_error: 0.0053
425 epoch_end_callback epoch 111 lr 0.001
426 Epoch 113/10000
427   - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
```

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427 0057 - val_mean_squared_error: 0.0057
428 epoch_end_callback epoch 112 lr 0.001
429 Epoch 114/10000
430 - 1s - loss: 0.0066 - mean_squared_error: 0.0066 - val_loss: 0.
0057 - val_mean_squared_error: 0.0057
431 epoch_end_callback epoch 113 lr 0.001
432 Epoch 115/10000
433 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0067 - val_mean_squared_error: 0.0067
434 epoch_end_callback epoch 114 lr 0.001
435 Epoch 116/10000
436 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0047 - val_mean_squared_error: 0.0047
437 epoch_end_callback epoch 115 lr 0.001
438 Epoch 117/10000
439 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0068 - val_mean_squared_error: 0.0068
440 epoch_end_callback epoch 116 lr 0.001
441 Epoch 118/10000
442 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0051 - val_mean_squared_error: 0.0051
443 epoch_end_callback epoch 117 lr 0.001
444 Epoch 119/10000
445 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0063 - val_mean_squared_error: 0.0063
446 epoch_end_callback epoch 118 lr 0.001
447 Epoch 120/10000
448 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
0049 - val_mean_squared_error: 0.0049
449
450 Epoch 00120: saving model to model/model_best.h5
451 epoch_end_callback epoch 119 lr 0.001
452 Epoch 121/10000
453 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
0076 - val_mean_squared_error: 0.0076
454 epoch_end_callback epoch 120 lr 0.001
455 Epoch 122/10000
```



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456 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
457 epoch_end_callback epoch 121 lr 0.001
458 Epoch 123/10000
459 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0057 - val_mean_squared_error: 0.0057
460 epoch_end_callback epoch 122 lr 0.001
461 Epoch 124/10000
462 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
463 epoch_end_callback epoch 123 lr 0.001
464 Epoch 125/10000
465 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0085 - val_mean_squared_error: 0.0085
466 epoch_end_callback epoch 124 lr 0.001
467 Epoch 126/10000
468 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0060 - val_mean_squared_error: 0.0060
469 epoch_end_callback epoch 125 lr 0.001
470 Epoch 127/10000
471 - 1s - loss: 0.0065 - mean_squared_error: 0.0065 - val_loss: 0.
    0049 - val_mean_squared_error: 0.0049
472 epoch_end_callback epoch 126 lr 0.001
473 Epoch 128/10000
474 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0088 - val_mean_squared_error: 0.0088
475 epoch_end_callback epoch 127 lr 0.001
476 Epoch 129/10000
477 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0059 - val_mean_squared_error: 0.0059
478 epoch_end_callback epoch 128 lr 0.001
479 Epoch 130/10000
480 - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
    0047 - val_mean_squared_error: 0.0047
481
482 Epoch 00130: saving model to model/model_best.h5
483 epoch_end_callback epoch 129 lr 0.001
```

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484 Epoch 131/10000
485   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0099 - val_mean_squared_error: 0.0099
486 epoch_end_callback epoch 130 lr 0.001
487 Epoch 132/10000
488   - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
0053 - val_mean_squared_error: 0.0053
489 epoch_end_callback epoch 131 lr 0.001
490 Epoch 133/10000
491   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0056 - val_mean_squared_error: 0.0056
492 epoch_end_callback epoch 132 lr 0.001
493 Epoch 134/10000
494   - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
0057 - val_mean_squared_error: 0.0057
495 epoch_end_callback epoch 133 lr 0.001
496 Epoch 135/10000
497   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0099 - val_mean_squared_error: 0.0099
498 epoch_end_callback epoch 134 lr 0.001
499 Epoch 136/10000
500   - 1s - loss: 0.0064 - mean_squared_error: 0.0064 - val_loss: 0.
0049 - val_mean_squared_error: 0.0049
501 epoch_end_callback epoch 135 lr 0.001
502 Epoch 137/10000
503   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0069 - val_mean_squared_error: 0.0069
504 epoch_end_callback epoch 136 lr 0.001
505 Epoch 138/10000
506   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0057 - val_mean_squared_error: 0.0057
507 epoch_end_callback epoch 137 lr 0.001
508 Epoch 139/10000
509   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0100 - val_mean_squared_error: 0.0100
510 epoch_end_callback epoch 138 lr 0.001
511 Epoch 140/10000
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512 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
513
514 Epoch 00140: saving model to model/model_best.h5
515 epoch_end_callback epoch 139 lr 0.001
516 Epoch 141/10000
517 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0057 - val_mean_squared_error: 0.0057
518 epoch_end_callback epoch 140 lr 0.001
519 Epoch 142/10000
520 - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0076 - val_mean_squared_error: 0.0076
521 epoch_end_callback epoch 141 lr 0.001
522 Epoch 143/10000
523 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0074 - val_mean_squared_error: 0.0074
524 epoch_end_callback epoch 142 lr 0.001
525 Epoch 144/10000
526 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0045 - val_mean_squared_error: 0.0045
527 epoch_end_callback epoch 143 lr 0.001
528 Epoch 145/10000
529 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0068 - val_mean_squared_error: 0.0068
530 epoch_end_callback epoch 144 lr 0.001
531 Epoch 146/10000
532 - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
533 epoch_end_callback epoch 145 lr 0.001
534 Epoch 147/10000
535 - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0101 - val_mean_squared_error: 0.0101
536 epoch_end_callback epoch 146 lr 0.001
537 Epoch 148/10000
538 - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
    0049 - val_mean_squared_error: 0.0049
539 epoch_end_callback epoch 147 lr 0.001
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540 Epoch 149/10000
541   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0062 - val_mean_squared_error: 0.0062
542 epoch_end_callback epoch 148 lr 0.001
543 Epoch 150/10000
544   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0064 - val_mean_squared_error: 0.0064
545
546 Epoch 00150: saving model to model/model_best.h5
547 epoch_end_callback epoch 149 lr 0.001
548 Epoch 151/10000
549   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0088 - val_mean_squared_error: 0.0088
550 epoch_end_callback epoch 150 lr 0.001
551 Epoch 152/10000
552   - 1s - loss: 0.0063 - mean_squared_error: 0.0063 - val_loss: 0.
0049 - val_mean_squared_error: 0.0049
553 epoch_end_callback epoch 151 lr 0.001
554 Epoch 153/10000
555   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0075 - val_mean_squared_error: 0.0075
556 epoch_end_callback epoch 152 lr 0.001
557 Epoch 154/10000
558   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0052 - val_mean_squared_error: 0.0052
559 epoch_end_callback epoch 153 lr 0.001
560 Epoch 155/10000
561   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0077 - val_mean_squared_error: 0.0077
562 epoch_end_callback epoch 154 lr 0.001
563 Epoch 156/10000
564   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0051 - val_mean_squared_error: 0.0051
565 epoch_end_callback epoch 155 lr 0.001
566 Epoch 157/10000
567   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0079 - val_mean_squared_error: 0.0079
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568 epoch_end_callback epoch 156 lr 0.001
569 Epoch 158/10000
570   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
571 epoch_end_callback epoch 157 lr 0.001
572 Epoch 159/10000
573   - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
    0079 - val_mean_squared_error: 0.0079
574 epoch_end_callback epoch 158 lr 0.001
575 Epoch 160/10000
576   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
577
578 Epoch 00160: saving model to model/model_best.h5
579 epoch_end_callback epoch 159 lr 0.001
580 Epoch 161/10000
581   - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
    0078 - val_mean_squared_error: 0.0078
582 epoch_end_callback epoch 160 lr 0.001
583 Epoch 162/10000
584   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
585 epoch_end_callback epoch 161 lr 0.001
586 Epoch 163/10000
587   - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
    0083 - val_mean_squared_error: 0.0083
588 epoch_end_callback epoch 162 lr 0.001
589 Epoch 164/10000
590   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
    0047 - val_mean_squared_error: 0.0047
591 epoch_end_callback epoch 163 lr 0.001
592 Epoch 165/10000
593   - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
    0081 - val_mean_squared_error: 0.0081
594 epoch_end_callback epoch 164 lr 0.001
595 Epoch 166/10000
596   - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
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596 0049 - val_mean_squared_error: 0.0049
597 epoch_end_callback epoch 165 lr 0.001
598 Epoch 167/10000
599 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
0081 - val_mean_squared_error: 0.0081
600 epoch_end_callback epoch 166 lr 0.001
601 Epoch 168/10000
602 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
0051 - val_mean_squared_error: 0.0051
603 epoch_end_callback epoch 167 lr 0.001
604 Epoch 169/10000
605 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
0080 - val_mean_squared_error: 0.0080
606 epoch_end_callback epoch 168 lr 0.001
607 Epoch 170/10000
608 - 1s - loss: 0.0062 - mean_squared_error: 0.0062 - val_loss: 0.
0048 - val_mean_squared_error: 0.0048
609
610 Epoch 00170: saving model to model/model_best.h5
611 epoch_end_callback epoch 169 lr 0.001
612 Epoch 171/10000
613 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
0066 - val_mean_squared_error: 0.0066
614 epoch_end_callback epoch 170 lr 0.001
615 Epoch 172/10000
616 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
0057 - val_mean_squared_error: 0.0057
617 epoch_end_callback epoch 171 lr 0.001
618 Epoch 173/10000
619 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
0082 - val_mean_squared_error: 0.0082
620 epoch_end_callback epoch 172 lr 0.001
621 Epoch 174/10000
622 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
0048 - val_mean_squared_error: 0.0048
623 epoch_end_callback epoch 173 lr 0.001
624 Epoch 175/10000
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625 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0060 - val_mean_squared_error: 0.0060
626 epoch_end_callback epoch 174 lr 0.001
627 Epoch 176/10000
628 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0058 - val_mean_squared_error: 0.0058
629 epoch_end_callback epoch 175 lr 0.001
630 Epoch 177/10000
631 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
632 epoch_end_callback epoch 176 lr 0.001
633 Epoch 178/10000
634 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0083 - val_mean_squared_error: 0.0083
635 epoch_end_callback epoch 177 lr 0.001
636 Epoch 179/10000
637 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0051 - val_mean_squared_error: 0.0051
638 epoch_end_callback epoch 178 lr 0.001
639 Epoch 180/10000
640 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0052 - val_mean_squared_error: 0.0052
641
642 Epoch 00180: saving model to model/model_best.h5
643 epoch_end_callback epoch 179 lr 0.001
644 Epoch 181/10000
645 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0074 - val_mean_squared_error: 0.0074
646 epoch_end_callback epoch 180 lr 0.001
647 Epoch 182/10000
648 - 1s - loss: 0.0061 - mean_squared_error: 0.0061 - val_loss: 0.
    0062 - val_mean_squared_error: 0.0062
649 epoch_end_callback epoch 181 lr 0.001
650 Epoch 183/10000
651 - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0050 - val_mean_squared_error: 0.0050
652 epoch_end_callback epoch 182 lr 0.001
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653 Epoch 184/10000
654   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0075 - val_mean_squared_error: 0.0075
655 epoch_end_callback epoch 183 lr 0.001
656 Epoch 185/10000
657   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0054 - val_mean_squared_error: 0.0054
658 epoch_end_callback epoch 184 lr 0.001
659 Epoch 186/10000
660   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0055 - val_mean_squared_error: 0.0055
661 epoch_end_callback epoch 185 lr 0.001
662 Epoch 187/10000
663   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0065 - val_mean_squared_error: 0.0065
664 epoch_end_callback epoch 186 lr 0.001
665 Epoch 188/10000
666   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0058 - val_mean_squared_error: 0.0058
667 epoch_end_callback epoch 187 lr 0.001
668 Epoch 189/10000
669   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0068 - val_mean_squared_error: 0.0068
670 epoch_end_callback epoch 188 lr 0.001
671 Epoch 190/10000
672   - 1s - loss: 0.0060 - mean_squared_error: 0.0060 - val_loss: 0.
    0059 - val_mean_squared_error: 0.0059
673
674 Epoch 00190: saving model to model/model_best.h5
675 epoch_end_callback epoch 189 lr 0.001
676 Epoch 191/10000
677   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0069 - val_mean_squared_error: 0.0069
678 epoch_end_callback epoch 190 lr 0.001
679 Epoch 192/10000
680   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0060 - val_mean_squared_error: 0.0060
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681 epoch_end_callback epoch 191 lr 0.001
682 Epoch 193/10000
683   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0064 - val_mean_squared_error: 0.0064
684 epoch_end_callback epoch 192 lr 0.001
685 Epoch 194/10000
686   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0059 - val_mean_squared_error: 0.0059
687 epoch_end_callback epoch 193 lr 0.001
688 Epoch 195/10000
689   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0083 - val_mean_squared_error: 0.0083
690 epoch_end_callback epoch 194 lr 0.001
691 Epoch 196/10000
692   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0065 - val_mean_squared_error: 0.0065
693 epoch_end_callback epoch 195 lr 0.001
694 Epoch 197/10000
695   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0058 - val_mean_squared_error: 0.0058
696 epoch_end_callback epoch 196 lr 0.001
697 Epoch 198/10000
698   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0072 - val_mean_squared_error: 0.0072
699 epoch_end_callback epoch 197 lr 0.001
700 Epoch 199/10000
701   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0076 - val_mean_squared_error: 0.0076
702 epoch_end_callback epoch 198 lr 0.001
703 Epoch 200/10000
704   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
    0056 - val_mean_squared_error: 0.0056
705
706 Epoch 00200: saving model to model/model_best.h5
707 epoch_end_callback epoch 199 lr 0.001
708 Epoch 201/10000
709   - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
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709 0066 - val_mean_squared_error: 0.0066
710 epoch_end_callback epoch 200 lr 0.001
711 Epoch 202/10000
712 - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
0067 - val_mean_squared_error: 0.0067
713 epoch_end_callback epoch 201 lr 0.001
714 Epoch 203/10000
715 - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
0058 - val_mean_squared_error: 0.0058
716 epoch_end_callback epoch 202 lr 0.001
717 Epoch 204/10000
718 - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
0062 - val_mean_squared_error: 0.0062
719 epoch_end_callback epoch 203 lr 0.001
720 Epoch 205/10000
721 - 1s - loss: 0.0059 - mean_squared_error: 0.0059 - val_loss: 0.
0056 - val_mean_squared_error: 0.0056
722 epoch_end_callback epoch 204 lr 0.001
723 Epoch 206/10000
724 - 1s - loss: 0.0058 - mean_squared_error: 0.0058 - val_loss: 0.
0077 - val_mean_squared_error: 0.0077
725 epoch_end_callback epoch 205 lr 0.001
726 Epoch 207/10000
727 - 1s - loss: 0.0058 - mean_squared_error: 0.0058 - val_loss: 0.
0068 - val_mean_squared_error: 0.0068
728
729 Epoch 00207: ReduceLRonPlateau reducing learning rate to 0.
000100000000475.
730 epoch_end_callback epoch 206 lr 0.001
731 Epoch 208/10000
732 - 1s - loss: 0.0056 - mean_squared_error: 0.0056 - val_loss: 0.
0045 - val_mean_squared_error: 0.0045
733 epoch_end_callback epoch 207 lr 0.0001000000005
734 Epoch 209/10000
735 - 1s - loss: 0.0055 - mean_squared_error: 0.0055 - val_loss: 0.
0043 - val_mean_squared_error: 0.0043
736 epoch_end_callback epoch 208 lr 0.0001000000005
```

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737 Epoch 210/10000
738   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0043 - val_mean_squared_error: 0.0043
739
740 Epoch 00210: saving model to model/model_best.h5
741 epoch_end_callback epoch 209 lr 0.0001000000005
742 Epoch 211/10000
743   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0043 - val_mean_squared_error: 0.0043
744 epoch_end_callback epoch 210 lr 0.0001000000005
745 Epoch 212/10000
746   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
747 epoch_end_callback epoch 211 lr 0.0001000000005
748 Epoch 213/10000
749   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
750 epoch_end_callback epoch 212 lr 0.0001000000005
751 Epoch 214/10000
752   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
753 epoch_end_callback epoch 213 lr 0.0001000000005
754 Epoch 215/10000
755   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
756 epoch_end_callback epoch 214 lr 0.0001000000005
757 Epoch 216/10000
758   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
759 epoch_end_callback epoch 215 lr 0.0001000000005
760 Epoch 217/10000
761   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0042 - val_mean_squared_error: 0.0042
762 epoch_end_callback epoch 216 lr 0.0001000000005
763 Epoch 218/10000
764   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0041 - val_mean_squared_error: 0.0041
```

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765 epoch_end_callback epoch 217 lr 0.0001000000005
766 Epoch 219/10000
767   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
768 epoch_end_callback epoch 218 lr 0.0001000000005
769 Epoch 220/10000
770   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
771
772 Epoch 00220: saving model to model/model_best.h5
773 epoch_end_callback epoch 219 lr 0.0001000000005
774 Epoch 221/10000
775   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
776 epoch_end_callback epoch 220 lr 0.0001000000005
777 Epoch 222/10000
778   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
779 epoch_end_callback epoch 221 lr 0.0001000000005
780 Epoch 223/10000
781   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
782 epoch_end_callback epoch 222 lr 0.0001000000005
783 Epoch 224/10000
784   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
785 epoch_end_callback epoch 223 lr 0.0001000000005
786 Epoch 225/10000
787   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
788 epoch_end_callback epoch 224 lr 0.0001000000005
789 Epoch 226/10000
790   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
    0041 - val_mean_squared_error: 0.0041
791 epoch_end_callback epoch 225 lr 0.0001000000005
792 Epoch 227/10000
793   - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
```

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793 0041 - val_mean_squared_error: 0.0041
794 epoch_end_callback epoch 226 lr 0.0001000000005
795 Epoch 228/10000
796 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0041 - val_mean_squared_error: 0.0041
797 epoch_end_callback epoch 227 lr 0.0001000000005
798 Epoch 229/10000
799 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0041 - val_mean_squared_error: 0.0041
800 epoch_end_callback epoch 228 lr 0.0001000000005
801 Epoch 230/10000
802 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0041 - val_mean_squared_error: 0.0041
803
804 Epoch 00230: saving model to model/model_best.h5
805 epoch_end_callback epoch 229 lr 0.0001000000005
806 Epoch 231/10000
807 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0041 - val_mean_squared_error: 0.0041
808 epoch_end_callback epoch 230 lr 0.0001000000005
809 Epoch 232/10000
810 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
811 epoch_end_callback epoch 231 lr 0.0001000000005
812 Epoch 233/10000
813 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
814 epoch_end_callback epoch 232 lr 0.0001000000005
815 Epoch 234/10000
816 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
817 epoch_end_callback epoch 233 lr 0.0001000000005
818 Epoch 235/10000
819 - 1s - loss: 0.0054 - mean_squared_error: 0.0054 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
820 epoch_end_callback epoch 234 lr 0.0001000000005
821 Epoch 236/10000
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822 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
823 epoch_end_callback epoch 235 lr 0.0001000000005
824 Epoch 237/10000
825 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
826 epoch_end_callback epoch 236 lr 0.0001000000005
827 Epoch 238/10000
828 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
829 epoch_end_callback epoch 237 lr 0.0001000000005
830 Epoch 239/10000
831 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
832 epoch_end_callback epoch 238 lr 0.0001000000005
833 Epoch 240/10000
834 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
835
836 Epoch 00240: saving model to model/model_best.h5
837 epoch_end_callback epoch 239 lr 0.0001000000005
838 Epoch 241/10000
839 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
840 epoch_end_callback epoch 240 lr 0.0001000000005
841 Epoch 242/10000
842 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
843 epoch_end_callback epoch 241 lr 0.0001000000005
844 Epoch 243/10000
845 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
846 epoch_end_callback epoch 242 lr 0.0001000000005
847 Epoch 244/10000
848 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
849 epoch_end_callback epoch 243 lr 0.0001000000005
```

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850 Epoch 245/10000
851   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
852 epoch_end_callback epoch 244 lr 0.0001000000005
853 Epoch 246/10000
854   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
855 epoch_end_callback epoch 245 lr 0.0001000000005
856 Epoch 247/10000
857   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
858 epoch_end_callback epoch 246 lr 0.0001000000005
859 Epoch 248/10000
860   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
861 epoch_end_callback epoch 247 lr 0.0001000000005
862 Epoch 249/10000
863   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
864 epoch_end_callback epoch 248 lr 0.0001000000005
865 Epoch 250/10000
866   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
867
868 Epoch 00250: saving model to model/model_best.h5
869 epoch_end_callback epoch 249 lr 0.0001000000005
870 Epoch 251/10000
871   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
872 epoch_end_callback epoch 250 lr 0.0001000000005
873 Epoch 252/10000
874   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
875 epoch_end_callback epoch 251 lr 0.0001000000005
876 Epoch 253/10000
877   - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0040 - val_mean_squared_error: 0.0040
```

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878 epoch_end_callback epoch 252 lr 0.0001000000005
879 Epoch 254/10000
880 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
881 epoch_end_callback epoch 253 lr 0.0001000000005
882 Epoch 255/10000
883 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
884 epoch_end_callback epoch 254 lr 0.0001000000005
885 Epoch 256/10000
886 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
887 epoch_end_callback epoch 255 lr 0.0001000000005
888 Epoch 257/10000
889 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
890 epoch_end_callback epoch 256 lr 0.0001000000005
891 Epoch 258/10000
892 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
893 epoch_end_callback epoch 257 lr 0.0001000000005
894 Epoch 259/10000
895 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
896 epoch_end_callback epoch 258 lr 0.0001000000005
897 Epoch 260/10000
898 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0040 - val_mean_squared_error: 0.0040
899
900 Epoch 00260: saving model to model/model_best.h5
901 epoch_end_callback epoch 259 lr 0.0001000000005
902 Epoch 261/10000
903 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
904 epoch_end_callback epoch 260 lr 0.0001000000005
905 Epoch 262/10000
906 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
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906 0039 - val_mean_squared_error: 0.0039
907 epoch_end_callback epoch 261 lr 0.0001000000005
908 Epoch 263/10000
909 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
910 epoch_end_callback epoch 262 lr 0.0001000000005
911 Epoch 264/10000
912 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
913 epoch_end_callback epoch 263 lr 0.0001000000005
914 Epoch 265/10000
915 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
916 epoch_end_callback epoch 264 lr 0.0001000000005
917 Epoch 266/10000
918 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
919 epoch_end_callback epoch 265 lr 0.0001000000005
920 Epoch 267/10000
921 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
922 epoch_end_callback epoch 266 lr 0.0001000000005
923 Epoch 268/10000
924 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
925 epoch_end_callback epoch 267 lr 0.0001000000005
926 Epoch 269/10000
927 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
928 epoch_end_callback epoch 268 lr 0.0001000000005
929 Epoch 270/10000
930 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
931
932 Epoch 00270: saving model to model/model_best.h5
933 epoch_end_callback epoch 269 lr 0.0001000000005
934 Epoch 271/10000
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935 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
936 epoch_end_callback epoch 270 lr 0.0001000000005
937 Epoch 272/10000
938 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
939 epoch_end_callback epoch 271 lr 0.0001000000005
940 Epoch 273/10000
941 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
942 epoch_end_callback epoch 272 lr 0.0001000000005
943 Epoch 274/10000
944 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
945 epoch_end_callback epoch 273 lr 0.0001000000005
946 Epoch 275/10000
947 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
948 epoch_end_callback epoch 274 lr 0.0001000000005
949 Epoch 276/10000
950 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
951 epoch_end_callback epoch 275 lr 0.0001000000005
952 Epoch 277/10000
953 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
954 epoch_end_callback epoch 276 lr 0.0001000000005
955 Epoch 278/10000
956 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
957 epoch_end_callback epoch 277 lr 0.0001000000005
958 Epoch 279/10000
959 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
    0039 - val_mean_squared_error: 0.0039
960 epoch_end_callback epoch 278 lr 0.0001000000005
961 Epoch 280/10000
962 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
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962 0039 - val_mean_squared_error: 0.0039
963
964 Epoch 00280: saving model to model/model_best.h5
965 epoch_end_callback epoch 279 lr 0.0001000000005
966 Epoch 281/10000
967 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
968 epoch_end_callback epoch 280 lr 0.0001000000005
969 Epoch 282/10000
970 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
971 epoch_end_callback epoch 281 lr 0.0001000000005
972 Epoch 283/10000
973 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
974 epoch_end_callback epoch 282 lr 0.0001000000005
975 Epoch 284/10000
976 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
977 epoch_end_callback epoch 283 lr 0.0001000000005
978 Epoch 285/10000
979 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
980 epoch_end_callback epoch 284 lr 0.0001000000005
981 Epoch 286/10000
982 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
983 epoch_end_callback epoch 285 lr 0.0001000000005
984 Epoch 287/10000
985 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
986 epoch_end_callback epoch 286 lr 0.0001000000005
987 Epoch 288/10000
988 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0.
0039 - val_mean_squared_error: 0.0039
989 epoch_end_callback epoch 287 lr 0.0001000000005
990 Epoch 289/10000
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991 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
992 epoch_end_callback epoch 288 lr 0.000100000005
993 Epoch 290/10000
994 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
995
996 Epoch 00290: saving model to model/model_best.h5
997 epoch_end_callback epoch 289 lr 0.000100000005
998 Epoch 291/10000
999 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
1000 epoch_end_callback epoch 290 lr 0.000100000005
1001 Epoch 292/10000
1002 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
1003 epoch_end_callback epoch 291 lr 0.000100000005
1004 Epoch 293/10000
1005 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
1006 epoch_end_callback epoch 292 lr 0.000100000005
1007 Epoch 294/10000
1008 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0039 - val_mean_squared_error: 0.0039
1009 epoch_end_callback epoch 293 lr 0.000100000005
1010 Epoch 295/10000
1011 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1012 epoch_end_callback epoch 294 lr 0.000100000005
1013 Epoch 296/10000
1014 - 1s - loss: 0.0053 - mean_squared_error: 0.0053 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1015 epoch_end_callback epoch 295 lr 0.000100000005
1016 Epoch 297/10000
1017 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1018 epoch_end_callback epoch 296 lr 0.000100000005
```

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1019 Epoch 298/10000
1020   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1021 epoch_end_callback epoch 297 lr 0.000100000005
1022 Epoch 299/10000
1023   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1024 epoch_end_callback epoch 298 lr 0.000100000005
1025 Epoch 300/10000
1026   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1027
1028 Epoch 00300: saving model to model/model_best.h5
1029 epoch_end_callback epoch 299 lr 0.000100000005
1030 Epoch 301/10000
1031   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1032 epoch_end_callback epoch 300 lr 0.000100000005
1033 Epoch 302/10000
1034   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1035 epoch_end_callback epoch 301 lr 0.000100000005
1036 Epoch 303/10000
1037   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1038 epoch_end_callback epoch 302 lr 0.000100000005
1039 Epoch 304/10000
1040   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1041 epoch_end_callback epoch 303 lr 0.000100000005
1042 Epoch 305/10000
1043   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
1044 epoch_end_callback epoch 304 lr 0.000100000005
1045 Epoch 306/10000
1046   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0038 - val_mean_squared_error: 0.0038
```

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1047 epoch_end_callback epoch 305 lr 0.0001000000005
1048 Epoch 307/10000
1049 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1050 epoch_end_callback epoch 306 lr 0.0001000000005
1051 Epoch 308/10000
1052 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1053 epoch_end_callback epoch 307 lr 0.0001000000005
1054 Epoch 309/10000
1055 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1056 epoch_end_callback epoch 308 lr 0.0001000000005
1057 Epoch 310/10000
1058 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1059
1060 Epoch 00310: saving model to model/model_best.h5
1061 epoch_end_callback epoch 309 lr 0.0001000000005
1062 Epoch 311/10000
1063 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1064 epoch_end_callback epoch 310 lr 0.0001000000005
1065 Epoch 312/10000
1066 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1067 epoch_end_callback epoch 311 lr 0.0001000000005
1068 Epoch 313/10000
1069 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1070 epoch_end_callback epoch 312 lr 0.0001000000005
1071 Epoch 314/10000
1072 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0038 - val_mean_squared_error: 0.0038
1073 epoch_end_callback epoch 313 lr 0.0001000000005
1074 Epoch 315/10000
1075 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
```

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1075 .0038 - val_mean_squared_error: 0.0038
1076 epoch_end_callback epoch 314 lr 0.000100000005
1077 Epoch 316/10000
1078 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0038 - val_mean_squared_error: 0.0038
1079 epoch_end_callback epoch 315 lr 0.000100000005
1080 Epoch 317/10000
1081 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1082 epoch_end_callback epoch 316 lr 0.000100000005
1083 Epoch 318/10000
1084 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1085 epoch_end_callback epoch 317 lr 0.000100000005
1086 Epoch 319/10000
1087 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1088 epoch_end_callback epoch 318 lr 0.000100000005
1089 Epoch 320/10000
1090 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1091
1092 Epoch 00320: saving model to model/model_best.h5
1093 epoch_end_callback epoch 319 lr 0.000100000005
1094 Epoch 321/10000
1095 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1096 epoch_end_callback epoch 320 lr 0.000100000005
1097 Epoch 322/10000
1098 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1099 epoch_end_callback epoch 321 lr 0.000100000005
1100 Epoch 323/10000
1101 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0037 - val_mean_squared_error: 0.0037
1102 epoch_end_callback epoch 322 lr 0.000100000005
1103 Epoch 324/10000
```



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1104 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1105 epoch_end_callback epoch 323 lr 0.0001000000005
1106 Epoch 325/10000
1107 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1108 epoch_end_callback epoch 324 lr 0.0001000000005
1109 Epoch 326/10000
1110 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1111 epoch_end_callback epoch 325 lr 0.0001000000005
1112 Epoch 327/10000
1113 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1114 epoch_end_callback epoch 326 lr 0.0001000000005
1115 Epoch 328/10000
1116 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1117 epoch_end_callback epoch 327 lr 0.0001000000005
1118 Epoch 329/10000
1119 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1120 epoch_end_callback epoch 328 lr 0.0001000000005
1121 Epoch 330/10000
1122 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1123
1124 Epoch 00330: saving model to model/model_best.h5
1125 epoch_end_callback epoch 329 lr 0.0001000000005
1126 Epoch 331/10000
1127 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1128 epoch_end_callback epoch 330 lr 0.0001000000005
1129 Epoch 332/10000
1130 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1131 epoch_end_callback epoch 331 lr 0.0001000000005
```



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1132 Epoch 333/10000
1133   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1134 epoch_end_callback epoch 332 lr 0.000100000005
1135 Epoch 334/10000
1136   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1137 epoch_end_callback epoch 333 lr 0.000100000005
1138 Epoch 335/10000
1139   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1140 epoch_end_callback epoch 334 lr 0.000100000005
1141 Epoch 336/10000
1142   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1143 epoch_end_callback epoch 335 lr 0.000100000005
1144 Epoch 337/10000
1145   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1146 epoch_end_callback epoch 336 lr 0.000100000005
1147 Epoch 338/10000
1148   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1149 epoch_end_callback epoch 337 lr 0.000100000005
1150 Epoch 339/10000
1151   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1152 epoch_end_callback epoch 338 lr 0.000100000005
1153 Epoch 340/10000
1154   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
1155
1156 Epoch 00340: saving model to model/model_best.h5
1157 epoch_end_callback epoch 339 lr 0.000100000005
1158 Epoch 341/10000
1159   - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0037 - val_mean_squared_error: 0.0037
```

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1160 epoch_end_callback epoch 340 lr 0.000100000005
1161 Epoch 342/10000
1162 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1163 epoch_end_callback epoch 341 lr 0.000100000005
1164 Epoch 343/10000
1165 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1166 epoch_end_callback epoch 342 lr 0.000100000005
1167 Epoch 344/10000
1168 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1169 epoch_end_callback epoch 343 lr 0.000100000005
1170 Epoch 345/10000
1171 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1172 epoch_end_callback epoch 344 lr 0.000100000005
1173 Epoch 346/10000
1174 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1175 epoch_end_callback epoch 345 lr 0.000100000005
1176 Epoch 347/10000
1177 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1178 epoch_end_callback epoch 346 lr 0.000100000005
1179 Epoch 348/10000
1180 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1181 epoch_end_callback epoch 347 lr 0.000100000005
1182 Epoch 349/10000
1183 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0037 - val_mean_squared_error: 0.0037
1184 epoch_end_callback epoch 348 lr 0.000100000005
1185 Epoch 350/10000
1186 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0036 - val_mean_squared_error: 0.0036
1187
```

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1188 Epoch 00350: saving model to model/model_best.h5
1189 epoch_end_callback epoch 349 lr 0.000100000005
1190 Epoch 351/10000
1191 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1192 epoch_end_callback epoch 350 lr 0.000100000005
1193 Epoch 352/10000
1194 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1195 epoch_end_callback epoch 351 lr 0.000100000005
1196 Epoch 353/10000
1197 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1198 epoch_end_callback epoch 352 lr 0.000100000005
1199 Epoch 354/10000
1200 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1201 epoch_end_callback epoch 353 lr 0.000100000005
1202 Epoch 355/10000
1203 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1204 epoch_end_callback epoch 354 lr 0.000100000005
1205 Epoch 356/10000
1206 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1207 epoch_end_callback epoch 355 lr 0.000100000005
1208 Epoch 357/10000
1209 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1210 epoch_end_callback epoch 356 lr 0.000100000005
1211 Epoch 358/10000
1212 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
1213 epoch_end_callback epoch 357 lr 0.000100000005
1214 Epoch 359/10000
1215 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
.0036 - val_mean_squared_error: 0.0036
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1216 epoch_end_callback epoch 358 lr 0.000100000005
1217 Epoch 360/10000
1218 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1219
1220 Epoch 00360: saving model to model/model_best.h5
1221 epoch_end_callback epoch 359 lr 0.000100000005
1222 Epoch 361/10000
1223 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1224 epoch_end_callback epoch 360 lr 0.000100000005
1225 Epoch 362/10000
1226 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1227 epoch_end_callback epoch 361 lr 0.000100000005
1228 Epoch 363/10000
1229 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1230 epoch_end_callback epoch 362 lr 0.000100000005
1231 Epoch 364/10000
1232 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1233 epoch_end_callback epoch 363 lr 0.000100000005
1234 Epoch 365/10000
1235 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1236 epoch_end_callback epoch 364 lr 0.000100000005
1237 Epoch 366/10000
1238 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1239 epoch_end_callback epoch 365 lr 0.000100000005
1240 Epoch 367/10000
1241 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0036 - val_mean_squared_error: 0.0036
1242 epoch_end_callback epoch 366 lr 0.000100000005
1243 Epoch 368/10000
1244 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
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1244 .0036 - val_mean_squared_error: 0.0036
1245 epoch_end_callback epoch 367 lr 0.000100000005
1246 Epoch 369/10000
1247 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0036 - val_mean_squared_error: 0.0036
1248 epoch_end_callback epoch 368 lr 0.000100000005
1249 Epoch 370/10000
1250 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0036 - val_mean_squared_error: 0.0036
1251
1252 Epoch 00370: saving model to model/model_best.h5
1253 epoch_end_callback epoch 369 lr 0.000100000005
1254 Epoch 371/10000
1255 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0036 - val_mean_squared_error: 0.0036
1256 epoch_end_callback epoch 370 lr 0.000100000005
1257 Epoch 372/10000
1258 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0036 - val_mean_squared_error: 0.0036
1259 epoch_end_callback epoch 371 lr 0.000100000005
1260 Epoch 373/10000
1261 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1262 epoch_end_callback epoch 372 lr 0.000100000005
1263 Epoch 374/10000
1264 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1265 epoch_end_callback epoch 373 lr 0.000100000005
1266 Epoch 375/10000
1267 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1268 epoch_end_callback epoch 374 lr 0.000100000005
1269 Epoch 376/10000
1270 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1271 epoch_end_callback epoch 375 lr 0.000100000005
1272 Epoch 377/10000
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1273 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1274 epoch_end_callback epoch 376 lr 0.0001000000005
1275 Epoch 378/10000
1276 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1277 epoch_end_callback epoch 377 lr 0.0001000000005
1278 Epoch 379/10000
1279 - 1s - loss: 0.0052 - mean_squared_error: 0.0052 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1280 epoch_end_callback epoch 378 lr 0.0001000000005
1281 Epoch 380/10000
1282 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1283
1284 Epoch 00380: saving model to model/model_best.h5
1285 epoch_end_callback epoch 379 lr 0.0001000000005
1286 Epoch 381/10000
1287 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1288 epoch_end_callback epoch 380 lr 0.0001000000005
1289 Epoch 382/10000
1290 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1291 epoch_end_callback epoch 381 lr 0.0001000000005
1292 Epoch 383/10000
1293 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1294 epoch_end_callback epoch 382 lr 0.0001000000005
1295 Epoch 384/10000
1296 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1297 epoch_end_callback epoch 383 lr 0.0001000000005
1298 Epoch 385/10000
1299 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1300 epoch_end_callback epoch 384 lr 0.0001000000005
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1301 Epoch 386/10000
1302   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1303 epoch_end_callback epoch 385 lr 0.000100000005
1304 Epoch 387/10000
1305   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1306 epoch_end_callback epoch 386 lr 0.000100000005
1307 Epoch 388/10000
1308   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1309 epoch_end_callback epoch 387 lr 0.000100000005
1310 Epoch 389/10000
1311   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1312 epoch_end_callback epoch 388 lr 0.000100000005
1313 Epoch 390/10000
1314   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1315
1316 Epoch 00390: saving model to model/model_best.h5
1317 epoch_end_callback epoch 389 lr 0.000100000005
1318 Epoch 391/10000
1319   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1320 epoch_end_callback epoch 390 lr 0.000100000005
1321 Epoch 392/10000
1322   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1323 epoch_end_callback epoch 391 lr 0.000100000005
1324 Epoch 393/10000
1325   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1326 epoch_end_callback epoch 392 lr 0.000100000005
1327 Epoch 394/10000
1328   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
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1329 epoch_end_callback epoch 393 lr 0.000100000005
1330 Epoch 395/10000
1331   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1332 epoch_end_callback epoch 394 lr 0.000100000005
1333 Epoch 396/10000
1334   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1335 epoch_end_callback epoch 395 lr 0.000100000005
1336 Epoch 397/10000
1337   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1338 epoch_end_callback epoch 396 lr 0.000100000005
1339 Epoch 398/10000
1340   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1341 epoch_end_callback epoch 397 lr 0.000100000005
1342 Epoch 399/10000
1343   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1344 epoch_end_callback epoch 398 lr 0.000100000005
1345 Epoch 400/10000
1346   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1347
1348 Epoch 00400: saving model to model/model_best.h5
1349 epoch_end_callback epoch 399 lr 0.000100000005
1350 Epoch 401/10000
1351   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1352 epoch_end_callback epoch 400 lr 0.000100000005
1353 Epoch 402/10000
1354   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1355 epoch_end_callback epoch 401 lr 0.000100000005
1356 Epoch 403/10000
1357   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
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1357 .0035 - val_mean_squared_error: 0.0035
1358 epoch_end_callback epoch 402 lr 0.000100000005
1359 Epoch 404/10000
1360 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1361 epoch_end_callback epoch 403 lr 0.000100000005
1362 Epoch 405/10000
1363 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1364 epoch_end_callback epoch 404 lr 0.000100000005
1365 Epoch 406/10000
1366 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1367 epoch_end_callback epoch 405 lr 0.000100000005
1368 Epoch 407/10000
1369 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1370 epoch_end_callback epoch 406 lr 0.000100000005
1371 Epoch 408/10000
1372 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1373 epoch_end_callback epoch 407 lr 0.000100000005
1374 Epoch 409/10000
1375 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1376 epoch_end_callback epoch 408 lr 0.000100000005
1377 Epoch 410/10000
1378 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1379
1380 Epoch 00410: saving model to model/model_best.h5
1381 epoch_end_callback epoch 409 lr 0.000100000005
1382 Epoch 411/10000
1383 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0035 - val_mean_squared_error: 0.0035
1384 epoch_end_callback epoch 410 lr 0.000100000005
1385 Epoch 412/10000
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1386 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1387 epoch_end_callback epoch 411 lr 0.000100000005
1388 Epoch 413/10000
1389 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1390 epoch_end_callback epoch 412 lr 0.000100000005
1391 Epoch 414/10000
1392 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1393 epoch_end_callback epoch 413 lr 0.000100000005
1394 Epoch 415/10000
1395 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1396 epoch_end_callback epoch 414 lr 0.000100000005
1397 Epoch 416/10000
1398 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1399 epoch_end_callback epoch 415 lr 0.000100000005
1400 Epoch 417/10000
1401 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0035 - val_mean_squared_error: 0.0035
1402 epoch_end_callback epoch 416 lr 0.000100000005
1403 Epoch 418/10000
1404 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1405 epoch_end_callback epoch 417 lr 0.000100000005
1406 Epoch 419/10000
1407 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1408 epoch_end_callback epoch 418 lr 0.000100000005
1409 Epoch 420/10000
1410 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1411
1412 Epoch 00420: saving model to model/model_best.h5
1413 epoch_end_callback epoch 419 lr 0.000100000005
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1414 Epoch 421/10000
1415   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1416 epoch_end_callback epoch 420 lr 0.000100000005
1417 Epoch 422/10000
1418   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1419 epoch_end_callback epoch 421 lr 0.000100000005
1420 Epoch 423/10000
1421   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1422 epoch_end_callback epoch 422 lr 0.000100000005
1423 Epoch 424/10000
1424   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1425 epoch_end_callback epoch 423 lr 0.000100000005
1426 Epoch 425/10000
1427   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1428 epoch_end_callback epoch 424 lr 0.000100000005
1429 Epoch 426/10000
1430   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1431 epoch_end_callback epoch 425 lr 0.000100000005
1432 Epoch 427/10000
1433   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1434 epoch_end_callback epoch 426 lr 0.000100000005
1435 Epoch 428/10000
1436   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1437 epoch_end_callback epoch 427 lr 0.000100000005
1438 Epoch 429/10000
1439   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1440 epoch_end_callback epoch 428 lr 0.000100000005
1441 Epoch 430/10000
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1442 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1443
1444 Epoch 00430: saving model to model/model_best.h5
1445 epoch_end_callback epoch 429 lr 0.000100000005
1446 Epoch 431/10000
1447 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1448 epoch_end_callback epoch 430 lr 0.000100000005
1449 Epoch 432/10000
1450 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1451 epoch_end_callback epoch 431 lr 0.000100000005
1452 Epoch 433/10000
1453 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1454 epoch_end_callback epoch 432 lr 0.000100000005
1455 Epoch 434/10000
1456 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1457 epoch_end_callback epoch 433 lr 0.000100000005
1458 Epoch 435/10000
1459 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1460 epoch_end_callback epoch 434 lr 0.000100000005
1461 Epoch 436/10000
1462 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1463 epoch_end_callback epoch 435 lr 0.000100000005
1464 Epoch 437/10000
1465 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1466 epoch_end_callback epoch 436 lr 0.000100000005
1467 Epoch 438/10000
1468 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1469 epoch_end_callback epoch 437 lr 0.000100000005
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1470 Epoch 439/10000
1471   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1472 epoch_end_callback epoch 438 lr 0.000100000005
1473 Epoch 440/10000
1474   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1475
1476 Epoch 00440: saving model to model/model_best.h5
1477 epoch_end_callback epoch 439 lr 0.000100000005
1478 Epoch 441/10000
1479   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1480 epoch_end_callback epoch 440 lr 0.000100000005
1481 Epoch 442/10000
1482   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1483 epoch_end_callback epoch 441 lr 0.000100000005
1484 Epoch 443/10000
1485   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1486 epoch_end_callback epoch 442 lr 0.000100000005
1487 Epoch 444/10000
1488   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1489 epoch_end_callback epoch 443 lr 0.000100000005
1490 Epoch 445/10000
1491   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1492 epoch_end_callback epoch 444 lr 0.000100000005
1493 Epoch 446/10000
1494   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1495 epoch_end_callback epoch 445 lr 0.000100000005
1496 Epoch 447/10000
1497   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
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1498 epoch_end_callback epoch 446 lr 0.000100000005
1499 Epoch 448/10000
1500 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1501 epoch_end_callback epoch 447 lr 0.000100000005
1502 Epoch 449/10000
1503 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1504 epoch_end_callback epoch 448 lr 0.000100000005
1505 Epoch 450/10000
1506 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1507
1508 Epoch 00450: saving model to model/model_best.h5
1509 epoch_end_callback epoch 449 lr 0.000100000005
1510 Epoch 451/10000
1511 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1512 epoch_end_callback epoch 450 lr 0.000100000005
1513 Epoch 452/10000
1514 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1515 epoch_end_callback epoch 451 lr 0.000100000005
1516 Epoch 453/10000
1517 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1518 epoch_end_callback epoch 452 lr 0.000100000005
1519 Epoch 454/10000
1520 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1521 epoch_end_callback epoch 453 lr 0.000100000005
1522 Epoch 455/10000
1523 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0034 - val_mean_squared_error: 0.0034
1524 epoch_end_callback epoch 454 lr 0.000100000005
1525 Epoch 456/10000
1526 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
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1526 .0034 - val_mean_squared_error: 0.0034
1527 epoch_end_callback epoch 455 lr 0.000100000005
1528 Epoch 457/10000
1529 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0034 - val_mean_squared_error: 0.0034
1530 epoch_end_callback epoch 456 lr 0.000100000005
1531 Epoch 458/10000
1532 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1533 epoch_end_callback epoch 457 lr 0.000100000005
1534 Epoch 459/10000
1535 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1536 epoch_end_callback epoch 458 lr 0.000100000005
1537 Epoch 460/10000
1538 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1539
1540 Epoch 00460: saving model to model/model_best.h5
1541 epoch_end_callback epoch 459 lr 0.000100000005
1542 Epoch 461/10000
1543 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1544 epoch_end_callback epoch 460 lr 0.000100000005
1545 Epoch 462/10000
1546 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1547 epoch_end_callback epoch 461 lr 0.000100000005
1548 Epoch 463/10000
1549 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1550 epoch_end_callback epoch 462 lr 0.000100000005
1551 Epoch 464/10000
1552 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
    .0033 - val_mean_squared_error: 0.0033
1553 epoch_end_callback epoch 463 lr 0.000100000005
1554 Epoch 465/10000
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1555 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1556 epoch_end_callback epoch 464 lr 0.000100000005
1557 Epoch 466/10000
1558 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1559 epoch_end_callback epoch 465 lr 0.000100000005
1560 Epoch 467/10000
1561 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1562 epoch_end_callback epoch 466 lr 0.000100000005
1563 Epoch 468/10000
1564 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1565 epoch_end_callback epoch 467 lr 0.000100000005
1566 Epoch 469/10000
1567 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1568 epoch_end_callback epoch 468 lr 0.000100000005
1569 Epoch 470/10000
1570 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1571
1572 Epoch 00470: saving model to model/model_best.h5
1573 epoch_end_callback epoch 469 lr 0.000100000005
1574 Epoch 471/10000
1575 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1576 epoch_end_callback epoch 470 lr 0.000100000005
1577 Epoch 472/10000
1578 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1579 epoch_end_callback epoch 471 lr 0.000100000005
1580 Epoch 473/10000
1581 - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1582 epoch_end_callback epoch 472 lr 0.000100000005
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1583 Epoch 474/10000
1584   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1585 epoch_end_callback epoch 473 lr 0.000100000005
1586 Epoch 475/10000
1587   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1588 epoch_end_callback epoch 474 lr 0.000100000005
1589 Epoch 476/10000
1590   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1591 epoch_end_callback epoch 475 lr 0.000100000005
1592 Epoch 477/10000
1593   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1594 epoch_end_callback epoch 476 lr 0.000100000005
1595 Epoch 478/10000
1596   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1597 epoch_end_callback epoch 477 lr 0.000100000005
1598 Epoch 479/10000
1599   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1600 epoch_end_callback epoch 478 lr 0.000100000005
1601 Epoch 480/10000
1602   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1603
1604 Epoch 00480: saving model to model/model_best.h5
1605 epoch_end_callback epoch 479 lr 0.000100000005
1606 Epoch 481/10000
1607   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1608 epoch_end_callback epoch 480 lr 0.000100000005
1609 Epoch 482/10000
1610   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
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1611 epoch_end_callback epoch 481 lr 0.000100000005
1612 Epoch 483/10000
1613   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1614 epoch_end_callback epoch 482 lr 0.000100000005
1615 Epoch 484/10000
1616   - 1s - loss: 0.0051 - mean_squared_error: 0.0051 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1617 epoch_end_callback epoch 483 lr 0.000100000005
1618 Epoch 485/10000
1619   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1620 epoch_end_callback epoch 484 lr 0.000100000005
1621 Epoch 486/10000
1622   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1623 epoch_end_callback epoch 485 lr 0.000100000005
1624 Epoch 487/10000
1625   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1626 epoch_end_callback epoch 486 lr 0.000100000005
1627 Epoch 488/10000
1628   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0033 - val_mean_squared_error: 0.0033
1629 epoch_end_callback epoch 487 lr 0.000100000005
1630 Epoch 489/10000
1631   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1632 epoch_end_callback epoch 488 lr 0.000100000005
1633 Epoch 490/10000
1634   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1635
1636 Epoch 00490: saving model to model/model_best.h5
1637 epoch_end_callback epoch 489 lr 0.000100000005
1638 Epoch 491/10000
1639   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
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1639 .0032 - val_mean_squared_error: 0.0032
1640 epoch_end_callback epoch 490 lr 0.000100000005
1641 Epoch 492/10000
1642 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1643 epoch_end_callback epoch 491 lr 0.000100000005
1644 Epoch 493/10000
1645 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1646 epoch_end_callback epoch 492 lr 0.000100000005
1647 Epoch 494/10000
1648 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1649 epoch_end_callback epoch 493 lr 0.000100000005
1650 Epoch 495/10000
1651 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1652 epoch_end_callback epoch 494 lr 0.000100000005
1653 Epoch 496/10000
1654 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1655 epoch_end_callback epoch 495 lr 0.000100000005
1656 Epoch 497/10000
1657 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1658 epoch_end_callback epoch 496 lr 0.000100000005
1659 Epoch 498/10000
1660 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1661 epoch_end_callback epoch 497 lr 0.000100000005
1662 Epoch 499/10000
1663 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
1664 epoch_end_callback epoch 498 lr 0.000100000005
1665 Epoch 500/10000
1666 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0032 - val_mean_squared_error: 0.0032
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1667
1668 Epoch 00500: saving model to model/model_best.h5
1669 epoch_end_callback epoch 499 lr 0.0001000000005
1670 Epoch 501/10000
1671   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1672 epoch_end_callback epoch 500 lr 0.0001000000005
1673 Epoch 502/10000
1674   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1675 epoch_end_callback epoch 501 lr 0.0001000000005
1676 Epoch 503/10000
1677   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1678 epoch_end_callback epoch 502 lr 0.0001000000005
1679 Epoch 504/10000
1680   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1681 epoch_end_callback epoch 503 lr 0.0001000000005
1682 Epoch 505/10000
1683   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1684 epoch_end_callback epoch 504 lr 0.0001000000005
1685 Epoch 506/10000
1686   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1687 epoch_end_callback epoch 505 lr 0.0001000000005
1688 Epoch 507/10000
1689   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1690 epoch_end_callback epoch 506 lr 0.0001000000005
1691 Epoch 508/10000
1692   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1693 epoch_end_callback epoch 507 lr 0.0001000000005
1694 Epoch 509/10000
1695   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
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1695 .0032 - val_mean_squared_error: 0.0032
1696 epoch_end_callback epoch 508 lr 0.000100000005
1697 Epoch 510/10000
1698 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1699
1700 Epoch 00510: saving model to model/model_best.h5
1701 epoch_end_callback epoch 509 lr 0.000100000005
1702 Epoch 511/10000
1703 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1704 epoch_end_callback epoch 510 lr 0.000100000005
1705 Epoch 512/10000
1706 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1707 epoch_end_callback epoch 511 lr 0.000100000005
1708 Epoch 513/10000
1709 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1710 epoch_end_callback epoch 512 lr 0.000100000005
1711 Epoch 514/10000
1712 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1713 epoch_end_callback epoch 513 lr 0.000100000005
1714 Epoch 515/10000
1715 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1716 epoch_end_callback epoch 514 lr 0.000100000005
1717 Epoch 516/10000
1718 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1719 epoch_end_callback epoch 515 lr 0.000100000005
1720 Epoch 517/10000
1721 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0032 - val_mean_squared_error: 0.0032
1722 epoch_end_callback epoch 516 lr 0.000100000005
1723 Epoch 518/10000
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1724 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1725 epoch_end_callback epoch 517 lr 0.000100000005
1726 Epoch 519/10000
1727 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1728 epoch_end_callback epoch 518 lr 0.000100000005
1729 Epoch 520/10000
1730 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1731
1732 Epoch 00520: saving model to model/model_best.h5
1733 epoch_end_callback epoch 519 lr 0.000100000005
1734 Epoch 521/10000
1735 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1736 epoch_end_callback epoch 520 lr 0.000100000005
1737 Epoch 522/10000
1738 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1739 epoch_end_callback epoch 521 lr 0.000100000005
1740 Epoch 523/10000
1741 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0032 - val_mean_squared_error: 0.0032
1742 epoch_end_callback epoch 522 lr 0.000100000005
1743 Epoch 524/10000
1744 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1745 epoch_end_callback epoch 523 lr 0.000100000005
1746 Epoch 525/10000
1747 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1748 epoch_end_callback epoch 524 lr 0.000100000005
1749 Epoch 526/10000
1750 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1751 epoch_end_callback epoch 525 lr 0.000100000005
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1752 Epoch 527/10000
1753   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1754 epoch_end_callback epoch 526 lr 0.0001000000005
1755 Epoch 528/10000
1756   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1757 epoch_end_callback epoch 527 lr 0.0001000000005
1758 Epoch 529/10000
1759   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1760 epoch_end_callback epoch 528 lr 0.0001000000005
1761 Epoch 530/10000
1762   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1763
1764 Epoch 00530: saving model to model/model_best.h5
1765 epoch_end_callback epoch 529 lr 0.0001000000005
1766 Epoch 531/10000
1767   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1768 epoch_end_callback epoch 530 lr 0.0001000000005
1769 Epoch 532/10000
1770   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1771 epoch_end_callback epoch 531 lr 0.0001000000005
1772 Epoch 533/10000
1773   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1774 epoch_end_callback epoch 532 lr 0.0001000000005
1775 Epoch 534/10000
1776   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1777 epoch_end_callback epoch 533 lr 0.0001000000005
1778 Epoch 535/10000
1779   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
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1780 epoch_end_callback epoch 534 lr 0.000100000005
1781 Epoch 536/10000
1782 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1783 epoch_end_callback epoch 535 lr 0.000100000005
1784 Epoch 537/10000
1785 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1786 epoch_end_callback epoch 536 lr 0.000100000005
1787 Epoch 538/10000
1788 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1789 epoch_end_callback epoch 537 lr 0.000100000005
1790 Epoch 539/10000
1791 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1792 epoch_end_callback epoch 538 lr 0.000100000005
1793 Epoch 540/10000
1794 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1795
1796 Epoch 00540: saving model to model/model_best.h5
1797 epoch_end_callback epoch 539 lr 0.000100000005
1798 Epoch 541/10000
1799 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1800 epoch_end_callback epoch 540 lr 0.000100000005
1801 Epoch 542/10000
1802 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1803 epoch_end_callback epoch 541 lr 0.000100000005
1804 Epoch 543/10000
1805 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0031 - val_mean_squared_error: 0.0031
1806 epoch_end_callback epoch 542 lr 0.000100000005
1807 Epoch 544/10000
1808 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
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1808 .0031 - val_mean_squared_error: 0.0031
1809 epoch_end_callback epoch 543 lr 0.000100000005
1810 Epoch 545/10000
1811 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1812 epoch_end_callback epoch 544 lr 0.000100000005
1813 Epoch 546/10000
1814 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1815 epoch_end_callback epoch 545 lr 0.000100000005
1816 Epoch 547/10000
1817 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1818 epoch_end_callback epoch 546 lr 0.000100000005
1819 Epoch 548/10000
1820 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1821 epoch_end_callback epoch 547 lr 0.000100000005
1822 Epoch 549/10000
1823 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1824 epoch_end_callback epoch 548 lr 0.000100000005
1825 Epoch 550/10000
1826 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1827
1828 Epoch 00550: saving model to model/model_best.h5
1829 epoch_end_callback epoch 549 lr 0.000100000005
1830 Epoch 551/10000
1831 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1832 epoch_end_callback epoch 550 lr 0.000100000005
1833 Epoch 552/10000
1834 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
.0031 - val_mean_squared_error: 0.0031
1835 epoch_end_callback epoch 551 lr 0.000100000005
1836 Epoch 553/10000
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1837 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1838 epoch_end_callback epoch 552 lr 0.0001000000005
1839 Epoch 554/10000
1840 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1841 epoch_end_callback epoch 553 lr 0.0001000000005
1842 Epoch 555/10000
1843 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1844 epoch_end_callback epoch 554 lr 0.0001000000005
1845 Epoch 556/10000
1846 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1847 epoch_end_callback epoch 555 lr 0.0001000000005
1848 Epoch 557/10000
1849 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1850 epoch_end_callback epoch 556 lr 0.0001000000005
1851 Epoch 558/10000
1852 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1853 epoch_end_callback epoch 557 lr 0.0001000000005
1854 Epoch 559/10000
1855 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1856 epoch_end_callback epoch 558 lr 0.0001000000005
1857 Epoch 560/10000
1858 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1859
1860 Epoch 00560: saving model to model/model_best.h5
1861 epoch_end_callback epoch 559 lr 0.0001000000005
1862 Epoch 561/10000
1863 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0031 - val_mean_squared_error: 0.0031
1864 epoch_end_callback epoch 560 lr 0.0001000000005
```

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1865 Epoch 562/10000
1866   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1867   .0031 - val_mean_squared_error: 0.0031
1867 epoch_end_callback epoch 561 lr 0.000100000005
1868 Epoch 563/10000
1869   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1870   .0031 - val_mean_squared_error: 0.0031
1870 epoch_end_callback epoch 562 lr 0.000100000005
1871 Epoch 564/10000
1872   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1873   .0031 - val_mean_squared_error: 0.0031
1873 epoch_end_callback epoch 563 lr 0.000100000005
1874 Epoch 565/10000
1875   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1876   .0031 - val_mean_squared_error: 0.0031
1876 epoch_end_callback epoch 564 lr 0.000100000005
1877 Epoch 566/10000
1878   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1879   .0030 - val_mean_squared_error: 0.0030
1879 epoch_end_callback epoch 565 lr 0.000100000005
1880 Epoch 567/10000
1881   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1882   .0030 - val_mean_squared_error: 0.0030
1882 epoch_end_callback epoch 566 lr 0.000100000005
1883 Epoch 568/10000
1884   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1885   .0030 - val_mean_squared_error: 0.0030
1885 epoch_end_callback epoch 567 lr 0.000100000005
1886 Epoch 569/10000
1887   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1888   .0030 - val_mean_squared_error: 0.0030
1888 epoch_end_callback epoch 568 lr 0.000100000005
1889 Epoch 570/10000
1890   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
1891   .0030 - val_mean_squared_error: 0.0030
1891
1892 Epoch 00570: saving model to model/model_best.h5
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1893 epoch_end_callback epoch 569 lr 0.000100000005
1894 Epoch 571/10000
1895   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1896 epoch_end_callback epoch 570 lr 0.000100000005
1897 Epoch 572/10000
1898   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1899 epoch_end_callback epoch 571 lr 0.000100000005
1900 Epoch 573/10000
1901   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1902 epoch_end_callback epoch 572 lr 0.000100000005
1903 Epoch 574/10000
1904   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1905 epoch_end_callback epoch 573 lr 0.000100000005
1906 Epoch 575/10000
1907   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1908 epoch_end_callback epoch 574 lr 0.000100000005
1909 Epoch 576/10000
1910   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1911 epoch_end_callback epoch 575 lr 0.000100000005
1912 Epoch 577/10000
1913   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1914 epoch_end_callback epoch 576 lr 0.000100000005
1915 Epoch 578/10000
1916   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1917 epoch_end_callback epoch 577 lr 0.000100000005
1918 Epoch 579/10000
1919   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1920 epoch_end_callback epoch 578 lr 0.000100000005
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1921 Epoch 580/10000
1922   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1923
1924 Epoch 00580: saving model to model/model_best.h5
1925 epoch_end_callback epoch 579 lr 0.000100000005
1926 Epoch 581/10000
1927   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1928 epoch_end_callback epoch 580 lr 0.000100000005
1929 Epoch 582/10000
1930   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1931 epoch_end_callback epoch 581 lr 0.000100000005
1932 Epoch 583/10000
1933   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1934 epoch_end_callback epoch 582 lr 0.000100000005
1935 Epoch 584/10000
1936   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1937 epoch_end_callback epoch 583 lr 0.000100000005
1938 Epoch 585/10000
1939   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1940 epoch_end_callback epoch 584 lr 0.000100000005
1941 Epoch 586/10000
1942   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1943 epoch_end_callback epoch 585 lr 0.000100000005
1944 Epoch 587/10000
1945   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1946 epoch_end_callback epoch 586 lr 0.000100000005
1947 Epoch 588/10000
1948   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
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1949 epoch_end_callback epoch 587 lr 0.000100000005
1950 Epoch 589/10000
1951   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1952 epoch_end_callback epoch 588 lr 0.000100000005
1953 Epoch 590/10000
1954   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1955
1956 Epoch 00590: saving model to model/model_best.h5
1957 epoch_end_callback epoch 589 lr 0.000100000005
1958 Epoch 591/10000
1959   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1960 epoch_end_callback epoch 590 lr 0.000100000005
1961 Epoch 592/10000
1962   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1963 epoch_end_callback epoch 591 lr 0.000100000005
1964 Epoch 593/10000
1965   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1966 epoch_end_callback epoch 592 lr 0.000100000005
1967 Epoch 594/10000
1968   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1969 epoch_end_callback epoch 593 lr 0.000100000005
1970 Epoch 595/10000
1971   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1972 epoch_end_callback epoch 594 lr 0.000100000005
1973 Epoch 596/10000
1974   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
1975 epoch_end_callback epoch 595 lr 0.000100000005
1976 Epoch 597/10000
1977   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
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1977 .0030 - val_mean_squared_error: 0.0030
1978 epoch_end_callback epoch 596 lr 0.000100000005
1979 Epoch 598/10000
1980 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1981 epoch_end_callback epoch 597 lr 0.000100000005
1982 Epoch 599/10000
1983 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1984 epoch_end_callback epoch 598 lr 0.000100000005
1985 Epoch 600/10000
1986 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1987
1988 Epoch 00600: saving model to model/model_best.h5
1989 epoch_end_callback epoch 599 lr 0.000100000005
1990 Epoch 601/10000
1991 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1992 epoch_end_callback epoch 600 lr 0.000100000005
1993 Epoch 602/10000
1994 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1995 epoch_end_callback epoch 601 lr 0.000100000005
1996 Epoch 603/10000
1997 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
1998 epoch_end_callback epoch 602 lr 0.000100000005
1999 Epoch 604/10000
2000 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
2001 epoch_end_callback epoch 603 lr 0.000100000005
2002 Epoch 605/10000
2003 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0030 - val_mean_squared_error: 0.0030
2004 epoch_end_callback epoch 604 lr 0.000100000005
2005 Epoch 606/10000
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2006 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2007 epoch_end_callback epoch 605 lr 0.000100000005
2008 Epoch 607/10000
2009 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2010 epoch_end_callback epoch 606 lr 0.000100000005
2011 Epoch 608/10000
2012 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2013 epoch_end_callback epoch 607 lr 0.000100000005
2014 Epoch 609/10000
2015 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2016 epoch_end_callback epoch 608 lr 0.000100000005
2017 Epoch 610/10000
2018 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2019
2020 Epoch 00610: saving model to model/model_best.h5
2021 epoch_end_callback epoch 609 lr 0.000100000005
2022 Epoch 611/10000
2023 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2024 epoch_end_callback epoch 610 lr 0.000100000005
2025 Epoch 612/10000
2026 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0030 - val_mean_squared_error: 0.0030
2027 epoch_end_callback epoch 611 lr 0.000100000005
2028 Epoch 613/10000
2029 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2030 epoch_end_callback epoch 612 lr 0.000100000005
2031 Epoch 614/10000
2032 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2033 epoch_end_callback epoch 613 lr 0.000100000005
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2034 Epoch 615/10000
2035   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2036 epoch_end_callback epoch 614 lr 0.0001000000005
2037 Epoch 616/10000
2038   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2039 epoch_end_callback epoch 615 lr 0.0001000000005
2040 Epoch 617/10000
2041   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2042 epoch_end_callback epoch 616 lr 0.0001000000005
2043 Epoch 618/10000
2044   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2045 epoch_end_callback epoch 617 lr 0.0001000000005
2046 Epoch 619/10000
2047   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2048 epoch_end_callback epoch 618 lr 0.0001000000005
2049 Epoch 620/10000
2050   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2051
2052 Epoch 00620: saving model to model/model_best.h5
2053 epoch_end_callback epoch 619 lr 0.0001000000005
2054 Epoch 621/10000
2055   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2056 epoch_end_callback epoch 620 lr 0.0001000000005
2057 Epoch 622/10000
2058   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2059 epoch_end_callback epoch 621 lr 0.0001000000005
2060 Epoch 623/10000
2061   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
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2062 epoch_end_callback epoch 622 lr 0.000100000005
2063 Epoch 624/10000
2064   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2065 epoch_end_callback epoch 623 lr 0.000100000005
2066 Epoch 625/10000
2067   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2068 epoch_end_callback epoch 624 lr 0.000100000005
2069 Epoch 626/10000
2070   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2071 epoch_end_callback epoch 625 lr 0.000100000005
2072 Epoch 627/10000
2073   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2074 epoch_end_callback epoch 626 lr 0.000100000005
2075 Epoch 628/10000
2076   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2077 epoch_end_callback epoch 627 lr 0.000100000005
2078 Epoch 629/10000
2079   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2080 epoch_end_callback epoch 628 lr 0.000100000005
2081 Epoch 630/10000
2082   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2083
2084 Epoch 00630: saving model to model/model_best.h5
2085 epoch_end_callback epoch 629 lr 0.000100000005
2086 Epoch 631/10000
2087   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2088 epoch_end_callback epoch 630 lr 0.000100000005
2089 Epoch 632/10000
2090   - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
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2090 .0029 - val_mean_squared_error: 0.0029
2091 epoch_end_callback epoch 631 lr 0.000100000005
2092 Epoch 633/10000
2093 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2094 epoch_end_callback epoch 632 lr 0.000100000005
2095 Epoch 634/10000
2096 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2097 epoch_end_callback epoch 633 lr 0.000100000005
2098 Epoch 635/10000
2099 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2100 epoch_end_callback epoch 634 lr 0.000100000005
2101 Epoch 636/10000
2102 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2103 epoch_end_callback epoch 635 lr 0.000100000005
2104 Epoch 637/10000
2105 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2106 epoch_end_callback epoch 636 lr 0.000100000005
2107 Epoch 638/10000
2108 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2109 epoch_end_callback epoch 637 lr 0.000100000005
2110 Epoch 639/10000
2111 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2112 epoch_end_callback epoch 638 lr 0.000100000005
2113 Epoch 640/10000
2114 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2115
2116 Epoch 00640: saving model to model/model_best.h5
2117 epoch_end_callback epoch 639 lr 0.000100000005
2118 Epoch 641/10000
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2119 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2120 epoch_end_callback epoch 640 lr 0.0001000000005
2121 Epoch 642/10000
2122 - 1s - loss: 0.0050 - mean_squared_error: 0.0050 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2123 epoch_end_callback epoch 641 lr 0.0001000000005
2124 Epoch 643/10000
2125 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2126 epoch_end_callback epoch 642 lr 0.0001000000005
2127 Epoch 644/10000
2128 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2129 epoch_end_callback epoch 643 lr 0.0001000000005
2130 Epoch 645/10000
2131 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2132 epoch_end_callback epoch 644 lr 0.0001000000005
2133 Epoch 646/10000
2134 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2135 epoch_end_callback epoch 645 lr 0.0001000000005
2136 Epoch 647/10000
2137 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2138 epoch_end_callback epoch 646 lr 0.0001000000005
2139 Epoch 648/10000
2140 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2141 epoch_end_callback epoch 647 lr 0.0001000000005
2142 Epoch 649/10000
2143 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2144 epoch_end_callback epoch 648 lr 0.0001000000005
2145 Epoch 650/10000
2146 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
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2146 .0029 - val_mean_squared_error: 0.0029
2147
2148 Epoch 00650: saving model to model/model_best.h5
2149 epoch_end_callback epoch 649 lr 0.000100000005
2150 Epoch 651/10000
2151 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2152 epoch_end_callback epoch 650 lr 0.000100000005
2153 Epoch 652/10000
2154 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2155 epoch_end_callback epoch 651 lr 0.000100000005
2156 Epoch 653/10000
2157 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2158 epoch_end_callback epoch 652 lr 0.000100000005
2159 Epoch 654/10000
2160 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2161 epoch_end_callback epoch 653 lr 0.000100000005
2162 Epoch 655/10000
2163 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2164 epoch_end_callback epoch 654 lr 0.000100000005
2165 Epoch 656/10000
2166 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2167 epoch_end_callback epoch 655 lr 0.000100000005
2168 Epoch 657/10000
2169 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2170 epoch_end_callback epoch 656 lr 0.000100000005
2171 Epoch 658/10000
2172 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0029 - val_mean_squared_error: 0.0029
2173 epoch_end_callback epoch 657 lr 0.000100000005
2174 Epoch 659/10000
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2175 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2176 epoch_end_callback epoch 658 lr 0.0001000000005
2177 Epoch 660/10000
2178 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2179
2180 Epoch 00660: saving model to model/model_best.h5
2181 epoch_end_callback epoch 659 lr 0.0001000000005
2182 Epoch 661/10000
2183 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2184 epoch_end_callback epoch 660 lr 0.0001000000005
2185 Epoch 662/10000
2186 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2187 epoch_end_callback epoch 661 lr 0.0001000000005
2188 Epoch 663/10000
2189 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2190 epoch_end_callback epoch 662 lr 0.0001000000005
2191 Epoch 664/10000
2192 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2193 epoch_end_callback epoch 663 lr 0.0001000000005
2194 Epoch 665/10000
2195 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2196 epoch_end_callback epoch 664 lr 0.0001000000005
2197 Epoch 666/10000
2198 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2199 epoch_end_callback epoch 665 lr 0.0001000000005
2200 Epoch 667/10000
2201 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2202 epoch_end_callback epoch 666 lr 0.0001000000005
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2203 Epoch 668/10000
2204   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2205 epoch_end_callback epoch 667 lr 0.000100000005
2206 Epoch 669/10000
2207   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2208 epoch_end_callback epoch 668 lr 0.000100000005
2209 Epoch 670/10000
2210   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2211
2212 Epoch 00670: saving model to model/model_best.h5
2213 epoch_end_callback epoch 669 lr 0.000100000005
2214 Epoch 671/10000
2215   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2216 epoch_end_callback epoch 670 lr 0.000100000005
2217 Epoch 672/10000
2218   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2219 epoch_end_callback epoch 671 lr 0.000100000005
2220 Epoch 673/10000
2221   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2222 epoch_end_callback epoch 672 lr 0.000100000005
2223 Epoch 674/10000
2224   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2225 epoch_end_callback epoch 673 lr 0.000100000005
2226 Epoch 675/10000
2227   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0029 - val_mean_squared_error: 0.0029
2228 epoch_end_callback epoch 674 lr 0.000100000005
2229 Epoch 676/10000
2230   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
```



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2231 epoch_end_callback epoch 675 lr 0.000100000005
2232 Epoch 677/10000
2233   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2234 epoch_end_callback epoch 676 lr 0.000100000005
2235 Epoch 678/10000
2236   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2237 epoch_end_callback epoch 677 lr 0.000100000005
2238 Epoch 679/10000
2239   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2240 epoch_end_callback epoch 678 lr 0.000100000005
2241 Epoch 680/10000
2242   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2243
2244 Epoch 00680: saving model to model/model_best.h5
2245 epoch_end_callback epoch 679 lr 0.000100000005
2246 Epoch 681/10000
2247   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2248 epoch_end_callback epoch 680 lr 0.000100000005
2249 Epoch 682/10000
2250   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2251 epoch_end_callback epoch 681 lr 0.000100000005
2252 Epoch 683/10000
2253   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2254 epoch_end_callback epoch 682 lr 0.000100000005
2255 Epoch 684/10000
2256   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2257 epoch_end_callback epoch 683 lr 0.000100000005
2258 Epoch 685/10000
2259   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
```



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2259 .0028 - val_mean_squared_error: 0.0028
2260 epoch_end_callback epoch 684 lr 0.000100000005
2261 Epoch 686/10000
2262 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2263 epoch_end_callback epoch 685 lr 0.000100000005
2264 Epoch 687/10000
2265 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2266 epoch_end_callback epoch 686 lr 0.000100000005
2267 Epoch 688/10000
2268 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2269 epoch_end_callback epoch 687 lr 0.000100000005
2270 Epoch 689/10000
2271 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2272 epoch_end_callback epoch 688 lr 0.000100000005
2273 Epoch 690/10000
2274 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2275
2276 Epoch 00690: saving model to model/model_best.h5
2277 epoch_end_callback epoch 689 lr 0.000100000005
2278 Epoch 691/10000
2279 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2280 epoch_end_callback epoch 690 lr 0.000100000005
2281 Epoch 692/10000
2282 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2283 epoch_end_callback epoch 691 lr 0.000100000005
2284 Epoch 693/10000
2285 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2286 epoch_end_callback epoch 692 lr 0.000100000005
2287 Epoch 694/10000
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2288 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2289 epoch_end_callback epoch 693 lr 0.0001000000005
2290 Epoch 695/10000
2291 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2292 epoch_end_callback epoch 694 lr 0.0001000000005
2293 Epoch 696/10000
2294 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2295 epoch_end_callback epoch 695 lr 0.0001000000005
2296 Epoch 697/10000
2297 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2298 epoch_end_callback epoch 696 lr 0.0001000000005
2299 Epoch 698/10000
2300 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2301 epoch_end_callback epoch 697 lr 0.0001000000005
2302 Epoch 699/10000
2303 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2304 epoch_end_callback epoch 698 lr 0.0001000000005
2305 Epoch 700/10000
2306 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2307
2308 Epoch 00700: saving model to model/model_best.h5
2309 epoch_end_callback epoch 699 lr 0.0001000000005
2310 Epoch 701/10000
2311 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2312 epoch_end_callback epoch 700 lr 0.0001000000005
2313 Epoch 702/10000
2314 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2315 epoch_end_callback epoch 701 lr 0.0001000000005
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2316 Epoch 703/10000
2317   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2318 epoch_end_callback epoch 702 lr 0.0001000000005
2319 Epoch 704/10000
2320   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2321 epoch_end_callback epoch 703 lr 0.0001000000005
2322 Epoch 705/10000
2323   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2324 epoch_end_callback epoch 704 lr 0.0001000000005
2325 Epoch 706/10000
2326   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2327 epoch_end_callback epoch 705 lr 0.0001000000005
2328 Epoch 707/10000
2329   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2330 epoch_end_callback epoch 706 lr 0.0001000000005
2331 Epoch 708/10000
2332   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2333 epoch_end_callback epoch 707 lr 0.0001000000005
2334 Epoch 709/10000
2335   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2336 epoch_end_callback epoch 708 lr 0.0001000000005
2337 Epoch 710/10000
2338   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2339
2340 Epoch 00710: saving model to model/model_best.h5
2341 epoch_end_callback epoch 709 lr 0.0001000000005
2342 Epoch 711/10000
2343   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
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2344 epoch_end_callback epoch 710 lr 0.000100000005
2345 Epoch 712/10000
2346   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2347 epoch_end_callback epoch 711 lr 0.000100000005
2348 Epoch 713/10000
2349   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2350 epoch_end_callback epoch 712 lr 0.000100000005
2351 Epoch 714/10000
2352   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2353 epoch_end_callback epoch 713 lr 0.000100000005
2354 Epoch 715/10000
2355   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2356 epoch_end_callback epoch 714 lr 0.000100000005
2357 Epoch 716/10000
2358   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2359 epoch_end_callback epoch 715 lr 0.000100000005
2360 Epoch 717/10000
2361   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2362 epoch_end_callback epoch 716 lr 0.000100000005
2363 Epoch 718/10000
2364   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2365 epoch_end_callback epoch 717 lr 0.000100000005
2366 Epoch 719/10000
2367   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2368 epoch_end_callback epoch 718 lr 0.000100000005
2369 Epoch 720/10000
2370   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2371
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2372 Epoch 00720: saving model to model/model_best.h5
2373 epoch_end_callback epoch 719 lr 0.000100000005
2374 Epoch 721/10000
2375 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2376 epoch_end_callback epoch 720 lr 0.000100000005
2377 Epoch 722/10000
2378 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2379 epoch_end_callback epoch 721 lr 0.000100000005
2380 Epoch 723/10000
2381 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2382 epoch_end_callback epoch 722 lr 0.000100000005
2383 Epoch 724/10000
2384 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2385 epoch_end_callback epoch 723 lr 0.000100000005
2386 Epoch 725/10000
2387 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2388 epoch_end_callback epoch 724 lr 0.000100000005
2389 Epoch 726/10000
2390 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2391 epoch_end_callback epoch 725 lr 0.000100000005
2392 Epoch 727/10000
2393 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2394 epoch_end_callback epoch 726 lr 0.000100000005
2395 Epoch 728/10000
2396 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
2397 epoch_end_callback epoch 727 lr 0.000100000005
2398 Epoch 729/10000
2399 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0028 - val_mean_squared_error: 0.0028
```

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2400 epoch_end_callback epoch 728 lr 0.0001000000005
2401 Epoch 730/10000
2402 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2403
2404 Epoch 00730: saving model to model/model_best.h5
2405 epoch_end_callback epoch 729 lr 0.0001000000005
2406 Epoch 731/10000
2407 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2408 epoch_end_callback epoch 730 lr 0.0001000000005
2409 Epoch 732/10000
2410 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2411 epoch_end_callback epoch 731 lr 0.0001000000005
2412 Epoch 733/10000
2413 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2414 epoch_end_callback epoch 732 lr 0.0001000000005
2415 Epoch 734/10000
2416 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2417 epoch_end_callback epoch 733 lr 0.0001000000005
2418 Epoch 735/10000
2419 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2420 epoch_end_callback epoch 734 lr 0.0001000000005
2421 Epoch 736/10000
2422 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2423 epoch_end_callback epoch 735 lr 0.0001000000005
2424 Epoch 737/10000
2425 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2426 epoch_end_callback epoch 736 lr 0.0001000000005
2427 Epoch 738/10000
2428 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
```

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2428 .0028 - val_mean_squared_error: 0.0028
2429 epoch_end_callback epoch 737 lr 0.000100000005
2430 Epoch 739/10000
2431 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2432 epoch_end_callback epoch 738 lr 0.000100000005
2433 Epoch 740/10000
2434 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2435
2436 Epoch 00740: saving model to model/model_best.h5
2437 epoch_end_callback epoch 739 lr 0.000100000005
2438 Epoch 741/10000
2439 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2440 epoch_end_callback epoch 740 lr 0.000100000005
2441 Epoch 742/10000
2442 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2443 epoch_end_callback epoch 741 lr 0.000100000005
2444 Epoch 743/10000
2445 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2446 epoch_end_callback epoch 742 lr 0.000100000005
2447 Epoch 744/10000
2448 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2449 epoch_end_callback epoch 743 lr 0.000100000005
2450 Epoch 745/10000
2451 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2452 epoch_end_callback epoch 744 lr 0.000100000005
2453 Epoch 746/10000
2454 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2455 epoch_end_callback epoch 745 lr 0.000100000005
2456 Epoch 747/10000
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2457 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2458 epoch_end_callback epoch 746 lr 0.0001000000005
2459 Epoch 748/10000
2460 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2461 epoch_end_callback epoch 747 lr 0.0001000000005
2462 Epoch 749/10000
2463 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2464 epoch_end_callback epoch 748 lr 0.0001000000005
2465 Epoch 750/10000
2466 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2467
2468 Epoch 00750: saving model to model/model_best.h5
2469 epoch_end_callback epoch 749 lr 0.0001000000005
2470 Epoch 751/10000
2471 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2472 epoch_end_callback epoch 750 lr 0.0001000000005
2473 Epoch 752/10000
2474 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2475 epoch_end_callback epoch 751 lr 0.0001000000005
2476 Epoch 753/10000
2477 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2478 epoch_end_callback epoch 752 lr 0.0001000000005
2479 Epoch 754/10000
2480 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2481 epoch_end_callback epoch 753 lr 0.0001000000005
2482 Epoch 755/10000
2483 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0028 - val_mean_squared_error: 0.0028
2484 epoch_end_callback epoch 754 lr 0.0001000000005
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2485 Epoch 756/10000
2486   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2487 epoch_end_callback epoch 755 lr 0.0001000000005
2488 Epoch 757/10000
2489   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2490 epoch_end_callback epoch 756 lr 0.0001000000005
2491 Epoch 758/10000
2492   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2493 epoch_end_callback epoch 757 lr 0.0001000000005
2494 Epoch 759/10000
2495   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2496 epoch_end_callback epoch 758 lr 0.0001000000005
2497 Epoch 760/10000
2498   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2499
2500 Epoch 00760: saving model to model/model_best.h5
2501 epoch_end_callback epoch 759 lr 0.0001000000005
2502 Epoch 761/10000
2503   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2504 epoch_end_callback epoch 760 lr 0.0001000000005
2505 Epoch 762/10000
2506   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2507 epoch_end_callback epoch 761 lr 0.0001000000005
2508 Epoch 763/10000
2509   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2510 epoch_end_callback epoch 762 lr 0.0001000000005
2511 Epoch 764/10000
2512   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
```

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2513 epoch_end_callback epoch 763 lr 0.000100000005
2514 Epoch 765/10000
2515   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2516 epoch_end_callback epoch 764 lr 0.000100000005
2517 Epoch 766/10000
2518   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2519 epoch_end_callback epoch 765 lr 0.000100000005
2520 Epoch 767/10000
2521   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2522 epoch_end_callback epoch 766 lr 0.000100000005
2523 Epoch 768/10000
2524   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2525 epoch_end_callback epoch 767 lr 0.000100000005
2526 Epoch 769/10000
2527   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2528 epoch_end_callback epoch 768 lr 0.000100000005
2529 Epoch 770/10000
2530   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2531
2532 Epoch 00770: saving model to model/model_best.h5
2533 epoch_end_callback epoch 769 lr 0.000100000005
2534 Epoch 771/10000
2535   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2536 epoch_end_callback epoch 770 lr 0.000100000005
2537 Epoch 772/10000
2538   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2539 epoch_end_callback epoch 771 lr 0.000100000005
2540 Epoch 773/10000
2541   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
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2541 .0027 - val_mean_squared_error: 0.0027
2542 epoch_end_callback epoch 772 lr 0.000100000005
2543 Epoch 774/10000
2544 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2545 epoch_end_callback epoch 773 lr 0.000100000005
2546 Epoch 775/10000
2547 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2548 epoch_end_callback epoch 774 lr 0.000100000005
2549 Epoch 776/10000
2550 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2551 epoch_end_callback epoch 775 lr 0.000100000005
2552 Epoch 777/10000
2553 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2554 epoch_end_callback epoch 776 lr 0.000100000005
2555 Epoch 778/10000
2556 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2557 epoch_end_callback epoch 777 lr 0.000100000005
2558 Epoch 779/10000
2559 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2560 epoch_end_callback epoch 778 lr 0.000100000005
2561 Epoch 780/10000
2562 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2563
2564 Epoch 00780: saving model to model/model_best.h5
2565 epoch_end_callback epoch 779 lr 0.000100000005
2566 Epoch 781/10000
2567 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2568 epoch_end_callback epoch 780 lr 0.000100000005
2569 Epoch 782/10000
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2570 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2571 epoch_end_callback epoch 781 lr 0.000100000005
2572 Epoch 783/10000
2573 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2574 epoch_end_callback epoch 782 lr 0.000100000005
2575 Epoch 784/10000
2576 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2577 epoch_end_callback epoch 783 lr 0.000100000005
2578 Epoch 785/10000
2579 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2580 epoch_end_callback epoch 784 lr 0.000100000005
2581 Epoch 786/10000
2582 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2583 epoch_end_callback epoch 785 lr 0.000100000005
2584 Epoch 787/10000
2585 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2586 epoch_end_callback epoch 786 lr 0.000100000005
2587 Epoch 788/10000
2588 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2589 epoch_end_callback epoch 787 lr 0.000100000005
2590 Epoch 789/10000
2591 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2592 epoch_end_callback epoch 788 lr 0.000100000005
2593 Epoch 790/10000
2594 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2595
2596 Epoch 00790: saving model to model/model_best.h5
2597 epoch_end_callback epoch 789 lr 0.000100000005
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2598 Epoch 791/10000
2599   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2600 epoch_end_callback epoch 790 lr 0.0001000000005
2601 Epoch 792/10000
2602   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2603 epoch_end_callback epoch 791 lr 0.0001000000005
2604 Epoch 793/10000
2605   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2606 epoch_end_callback epoch 792 lr 0.0001000000005
2607 Epoch 794/10000
2608   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2609 epoch_end_callback epoch 793 lr 0.0001000000005
2610 Epoch 795/10000
2611   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2612 epoch_end_callback epoch 794 lr 0.0001000000005
2613 Epoch 796/10000
2614   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2615 epoch_end_callback epoch 795 lr 0.0001000000005
2616 Epoch 797/10000
2617   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2618 epoch_end_callback epoch 796 lr 0.0001000000005
2619 Epoch 798/10000
2620   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2621 epoch_end_callback epoch 797 lr 0.0001000000005
2622 Epoch 799/10000
2623   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2624 epoch_end_callback epoch 798 lr 0.0001000000005
2625 Epoch 800/10000
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2626 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2627
2628 Epoch 00800: saving model to model/model_best.h5
2629 epoch_end_callback epoch 799 lr 0.000100000005
2630 Epoch 801/10000
2631 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2632 epoch_end_callback epoch 800 lr 0.000100000005
2633 Epoch 802/10000
2634 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2635 epoch_end_callback epoch 801 lr 0.000100000005
2636 Epoch 803/10000
2637 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2638 epoch_end_callback epoch 802 lr 0.000100000005
2639 Epoch 804/10000
2640 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2641 epoch_end_callback epoch 803 lr 0.000100000005
2642 Epoch 805/10000
2643 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2644 epoch_end_callback epoch 804 lr 0.000100000005
2645 Epoch 806/10000
2646 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2647 epoch_end_callback epoch 805 lr 0.000100000005
2648 Epoch 807/10000
2649 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2650 epoch_end_callback epoch 806 lr 0.000100000005
2651 Epoch 808/10000
2652 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2653 epoch_end_callback epoch 807 lr 0.000100000005
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2654 Epoch 809/10000
2655   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2656 epoch_end_callback epoch 808 lr 0.0001000000005
2657 Epoch 810/10000
2658   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2659
2660 Epoch 00810: saving model to model/model_best.h5
2661 epoch_end_callback epoch 809 lr 0.0001000000005
2662 Epoch 811/10000
2663   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2664 epoch_end_callback epoch 810 lr 0.0001000000005
2665 Epoch 812/10000
2666   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2667 epoch_end_callback epoch 811 lr 0.0001000000005
2668 Epoch 813/10000
2669   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2670 epoch_end_callback epoch 812 lr 0.0001000000005
2671 Epoch 814/10000
2672   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2673 epoch_end_callback epoch 813 lr 0.0001000000005
2674 Epoch 815/10000
2675   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2676 epoch_end_callback epoch 814 lr 0.0001000000005
2677 Epoch 816/10000
2678   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2679 epoch_end_callback epoch 815 lr 0.0001000000005
2680 Epoch 817/10000
2681   - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
```



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2682 epoch_end_callback epoch 816 lr 0.000100000005
2683 Epoch 818/10000
2684 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2685 epoch_end_callback epoch 817 lr 0.000100000005
2686 Epoch 819/10000
2687 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2688 epoch_end_callback epoch 818 lr 0.000100000005
2689 Epoch 820/10000
2690 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2691
2692 Epoch 00820: saving model to model/model_best.h5
2693 epoch_end_callback epoch 819 lr 0.000100000005
2694 Epoch 821/10000
2695 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2696 epoch_end_callback epoch 820 lr 0.000100000005
2697 Epoch 822/10000
2698 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2699 epoch_end_callback epoch 821 lr 0.000100000005
2700 Epoch 823/10000
2701 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2702 epoch_end_callback epoch 822 lr 0.000100000005
2703 Epoch 824/10000
2704 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2705
2706 Epoch 00824: ReduceLROnPlateau reducing learning rate to 1.
0000000475e-05.
2707 epoch_end_callback epoch 823 lr 0.000100000005
2708 Epoch 825/10000
2709 - 1s - loss: 0.0049 - mean_squared_error: 0.0049 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
```



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2710 epoch_end_callback epoch 824 lr 1.0000001e-05
2711 Epoch 826/10000
2712 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0028 - val_mean_squared_error: 0.0028
2713 epoch_end_callback epoch 825 lr 1.0000001e-05
2714 Epoch 827/10000
2715 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2716 epoch_end_callback epoch 826 lr 1.0000001e-05
2717 Epoch 828/10000
2718 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2719 epoch_end_callback epoch 827 lr 1.0000001e-05
2720 Epoch 829/10000
2721 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2722 epoch_end_callback epoch 828 lr 1.0000001e-05
2723 Epoch 830/10000
2724 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2725
2726 Epoch 00830: saving model to model/model_best.h5
2727 epoch_end_callback epoch 829 lr 1.0000001e-05
2728 Epoch 831/10000
2729 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2730 epoch_end_callback epoch 830 lr 1.0000001e-05
2731 Epoch 832/10000
2732 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2733 epoch_end_callback epoch 831 lr 1.0000001e-05
2734 Epoch 833/10000
2735 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2736 epoch_end_callback epoch 832 lr 1.0000001e-05
2737 Epoch 834/10000
2738 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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2738 .0027 - val_mean_squared_error: 0.0027
2739 epoch_end_callback epoch 833 lr 1.0000001e-05
2740 Epoch 835/10000
2741 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2742 epoch_end_callback epoch 834 lr 1.0000001e-05
2743 Epoch 836/10000
2744 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2745 epoch_end_callback epoch 835 lr 1.0000001e-05
2746 Epoch 837/10000
2747 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2748 epoch_end_callback epoch 836 lr 1.0000001e-05
2749 Epoch 838/10000
2750 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2751 epoch_end_callback epoch 837 lr 1.0000001e-05
2752 Epoch 839/10000
2753 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2754 epoch_end_callback epoch 838 lr 1.0000001e-05
2755 Epoch 840/10000
2756 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2757
2758 Epoch 00840: saving model to model/model_best.h5
2759 epoch_end_callback epoch 839 lr 1.0000001e-05
2760 Epoch 841/10000
2761 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2762 epoch_end_callback epoch 840 lr 1.0000001e-05
2763 Epoch 842/10000
2764 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2765 epoch_end_callback epoch 841 lr 1.0000001e-05
2766 Epoch 843/10000
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2767 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2768 epoch_end_callback epoch 842 lr 1.0000001e-05
2769 Epoch 844/10000
2770 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2771 epoch_end_callback epoch 843 lr 1.0000001e-05
2772 Epoch 845/10000
2773 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2774 epoch_end_callback epoch 844 lr 1.0000001e-05
2775 Epoch 846/10000
2776 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2777 epoch_end_callback epoch 845 lr 1.0000001e-05
2778 Epoch 847/10000
2779 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2780 epoch_end_callback epoch 846 lr 1.0000001e-05
2781 Epoch 848/10000
2782 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2783 epoch_end_callback epoch 847 lr 1.0000001e-05
2784 Epoch 849/10000
2785 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2786 epoch_end_callback epoch 848 lr 1.0000001e-05
2787 Epoch 850/10000
2788 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2789
2790 Epoch 00850: saving model to model/model_best.h5
2791 epoch_end_callback epoch 849 lr 1.0000001e-05
2792 Epoch 851/10000
2793 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2794 epoch_end_callback epoch 850 lr 1.0000001e-05
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2795 Epoch 852/10000
2796   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2797 epoch_end_callback epoch 851 lr 1.0000001e-05
2798 Epoch 853/10000
2799   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2800 epoch_end_callback epoch 852 lr 1.0000001e-05
2801 Epoch 854/10000
2802   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2803 epoch_end_callback epoch 853 lr 1.0000001e-05
2804 Epoch 855/10000
2805   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2806 epoch_end_callback epoch 854 lr 1.0000001e-05
2807 Epoch 856/10000
2808   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2809 epoch_end_callback epoch 855 lr 1.0000001e-05
2810 Epoch 857/10000
2811   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2812 epoch_end_callback epoch 856 lr 1.0000001e-05
2813 Epoch 858/10000
2814   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2815 epoch_end_callback epoch 857 lr 1.0000001e-05
2816 Epoch 859/10000
2817   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2818 epoch_end_callback epoch 858 lr 1.0000001e-05
2819 Epoch 860/10000
2820   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2821
2822 Epoch 00860: saving model to model/model_best.h5
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2823 epoch_end_callback epoch 859 lr 1.0000001e-05
2824 Epoch 861/10000
2825 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2826 epoch_end_callback epoch 860 lr 1.0000001e-05
2827 Epoch 862/10000
2828 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2829 epoch_end_callback epoch 861 lr 1.0000001e-05
2830 Epoch 863/10000
2831 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2832 epoch_end_callback epoch 862 lr 1.0000001e-05
2833 Epoch 864/10000
2834 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2835 epoch_end_callback epoch 863 lr 1.0000001e-05
2836 Epoch 865/10000
2837 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2838 epoch_end_callback epoch 864 lr 1.0000001e-05
2839 Epoch 866/10000
2840 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2841 epoch_end_callback epoch 865 lr 1.0000001e-05
2842 Epoch 867/10000
2843 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2844 epoch_end_callback epoch 866 lr 1.0000001e-05
2845 Epoch 868/10000
2846 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2847 epoch_end_callback epoch 867 lr 1.0000001e-05
2848 Epoch 869/10000
2849 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2850 epoch_end_callback epoch 868 lr 1.0000001e-05
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2851 Epoch 870/10000
2852   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2853
2854 Epoch 00870: saving model to model/model_best.h5
2855 epoch_end_callback epoch 869 lr 1.0000001e-05
2856 Epoch 871/10000
2857   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2858 epoch_end_callback epoch 870 lr 1.0000001e-05
2859 Epoch 872/10000
2860   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2861 epoch_end_callback epoch 871 lr 1.0000001e-05
2862 Epoch 873/10000
2863   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2864 epoch_end_callback epoch 872 lr 1.0000001e-05
2865 Epoch 874/10000
2866   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2867 epoch_end_callback epoch 873 lr 1.0000001e-05
2868 Epoch 875/10000
2869   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2870 epoch_end_callback epoch 874 lr 1.0000001e-05
2871 Epoch 876/10000
2872   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2873 epoch_end_callback epoch 875 lr 1.0000001e-05
2874 Epoch 877/10000
2875   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2876 epoch_end_callback epoch 876 lr 1.0000001e-05
2877 Epoch 878/10000
2878   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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2879 epoch_end_callback epoch 877 lr 1.0000001e-05
2880 Epoch 879/10000
2881 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2882 epoch_end_callback epoch 878 lr 1.0000001e-05
2883 Epoch 880/10000
2884 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2885
2886 Epoch 00880: saving model to model/model_best.h5
2887 epoch_end_callback epoch 879 lr 1.0000001e-05
2888 Epoch 881/10000
2889 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2890 epoch_end_callback epoch 880 lr 1.0000001e-05
2891 Epoch 882/10000
2892 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2893 epoch_end_callback epoch 881 lr 1.0000001e-05
2894 Epoch 883/10000
2895 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2896 epoch_end_callback epoch 882 lr 1.0000001e-05
2897 Epoch 884/10000
2898 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2899 epoch_end_callback epoch 883 lr 1.0000001e-05
2900 Epoch 885/10000
2901 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2902 epoch_end_callback epoch 884 lr 1.0000001e-05
2903 Epoch 886/10000
2904 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
2905 epoch_end_callback epoch 885 lr 1.0000001e-05
2906 Epoch 887/10000
2907 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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2907 .0027 - val_mean_squared_error: 0.0027
2908 epoch_end_callback epoch 886 lr 1.0000001e-05
2909 Epoch 888/10000
2910 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2911 epoch_end_callback epoch 887 lr 1.0000001e-05
2912 Epoch 889/10000
2913 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2914 epoch_end_callback epoch 888 lr 1.0000001e-05
2915 Epoch 890/10000
2916 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2917
2918 Epoch 00890: saving model to model/model_best.h5
2919 epoch_end_callback epoch 889 lr 1.0000001e-05
2920 Epoch 891/10000
2921 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2922 epoch_end_callback epoch 890 lr 1.0000001e-05
2923 Epoch 892/10000
2924 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2925 epoch_end_callback epoch 891 lr 1.0000001e-05
2926 Epoch 893/10000
2927 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2928 epoch_end_callback epoch 892 lr 1.0000001e-05
2929 Epoch 894/10000
2930 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2931 epoch_end_callback epoch 893 lr 1.0000001e-05
2932 Epoch 895/10000
2933 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2934 epoch_end_callback epoch 894 lr 1.0000001e-05
2935 Epoch 896/10000
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2936 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2937 epoch_end_callback epoch 895 lr 1.0000001e-05
2938 Epoch 897/10000
2939 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2940 epoch_end_callback epoch 896 lr 1.0000001e-05
2941 Epoch 898/10000
2942 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2943 epoch_end_callback epoch 897 lr 1.0000001e-05
2944 Epoch 899/10000
2945 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2946 epoch_end_callback epoch 898 lr 1.0000001e-05
2947 Epoch 900/10000
2948 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2949
2950 Epoch 00900: saving model to model/model_best.h5
2951 epoch_end_callback epoch 899 lr 1.0000001e-05
2952 Epoch 901/10000
2953 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2954 epoch_end_callback epoch 900 lr 1.0000001e-05
2955 Epoch 902/10000
2956 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2957 epoch_end_callback epoch 901 lr 1.0000001e-05
2958 Epoch 903/10000
2959 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2960 epoch_end_callback epoch 902 lr 1.0000001e-05
2961 Epoch 904/10000
2962 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2963 epoch_end_callback epoch 903 lr 1.0000001e-05
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2964 Epoch 905/10000
2965   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2966 epoch_end_callback epoch 904 lr 1.0000001e-05
2967 Epoch 906/10000
2968   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2969 epoch_end_callback epoch 905 lr 1.0000001e-05
2970 Epoch 907/10000
2971   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2972 epoch_end_callback epoch 906 lr 1.0000001e-05
2973 Epoch 908/10000
2974   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2975 epoch_end_callback epoch 907 lr 1.0000001e-05
2976 Epoch 909/10000
2977   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2978 epoch_end_callback epoch 908 lr 1.0000001e-05
2979 Epoch 910/10000
2980   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2981
2982 Epoch 00910: saving model to model/model_best.h5
2983 epoch_end_callback epoch 909 lr 1.0000001e-05
2984 Epoch 911/10000
2985   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2986 epoch_end_callback epoch 910 lr 1.0000001e-05
2987 Epoch 912/10000
2988   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
2989 epoch_end_callback epoch 911 lr 1.0000001e-05
2990 Epoch 913/10000
2991   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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2992 epoch_end_callback epoch 912 lr 1.0000001e-05
2993 Epoch 914/10000
2994 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2995 epoch_end_callback epoch 913 lr 1.0000001e-05
2996 Epoch 915/10000
2997 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
2998 epoch_end_callback epoch 914 lr 1.0000001e-05
2999 Epoch 916/10000
3000 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3001 epoch_end_callback epoch 915 lr 1.0000001e-05
3002 Epoch 917/10000
3003 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3004 epoch_end_callback epoch 916 lr 1.0000001e-05
3005 Epoch 918/10000
3006 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3007 epoch_end_callback epoch 917 lr 1.0000001e-05
3008 Epoch 919/10000
3009 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3010 epoch_end_callback epoch 918 lr 1.0000001e-05
3011 Epoch 920/10000
3012 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3013
3014 Epoch 00920: saving model to model/model_best.h5
3015 epoch_end_callback epoch 919 lr 1.0000001e-05
3016 Epoch 921/10000
3017 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3018 epoch_end_callback epoch 920 lr 1.0000001e-05
3019 Epoch 922/10000
3020 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3020 .0027 - val_mean_squared_error: 0.0027
3021 epoch_end_callback epoch 921 lr 1.0000001e-05
3022 Epoch 923/10000
3023 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3024 epoch_end_callback epoch 922 lr 1.0000001e-05
3025 Epoch 924/10000
3026 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3027
3028 Epoch 00924: ReduceLR0nPlateau reducing learning rate to 1.
    000000006569e-06.
3029 epoch_end_callback epoch 923 lr 1.0000001e-05
3030 Epoch 925/10000
3031 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3032 epoch_end_callback epoch 924 lr 1.0000001e-06
3033 Epoch 926/10000
3034 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3035 epoch_end_callback epoch 925 lr 1.0000001e-06
3036 Epoch 927/10000
3037 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3038 epoch_end_callback epoch 926 lr 1.0000001e-06
3039 Epoch 928/10000
3040 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3041 epoch_end_callback epoch 927 lr 1.0000001e-06
3042 Epoch 929/10000
3043 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3044 epoch_end_callback epoch 928 lr 1.0000001e-06
3045 Epoch 930/10000
3046 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3047
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3048 Epoch 00930: saving model to model/model_best.h5
3049 epoch_end_callback epoch 929 lr 1.0000001e-06
3050 Epoch 931/10000
3051 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3052 epoch_end_callback epoch 930 lr 1.0000001e-06
3053 Epoch 932/10000
3054 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3055 epoch_end_callback epoch 931 lr 1.0000001e-06
3056 Epoch 933/10000
3057 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3058 epoch_end_callback epoch 932 lr 1.0000001e-06
3059 Epoch 934/10000
3060 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3061 epoch_end_callback epoch 933 lr 1.0000001e-06
3062 Epoch 935/10000
3063 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3064 epoch_end_callback epoch 934 lr 1.0000001e-06
3065 Epoch 936/10000
3066 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3067 epoch_end_callback epoch 935 lr 1.0000001e-06
3068 Epoch 937/10000
3069 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3070 epoch_end_callback epoch 936 lr 1.0000001e-06
3071 Epoch 938/10000
3072 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3073 epoch_end_callback epoch 937 lr 1.0000001e-06
3074 Epoch 939/10000
3075 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
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3076 epoch_end_callback epoch 938 lr 1.0000001e-06
3077 Epoch 940/10000
3078 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3079
3080 Epoch 00940: saving model to model/model_best.h5
3081 epoch_end_callback epoch 939 lr 1.0000001e-06
3082 Epoch 941/10000
3083 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3084 epoch_end_callback epoch 940 lr 1.0000001e-06
3085 Epoch 942/10000
3086 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3087 epoch_end_callback epoch 941 lr 1.0000001e-06
3088 Epoch 943/10000
3089 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3090 epoch_end_callback epoch 942 lr 1.0000001e-06
3091 Epoch 944/10000
3092 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3093 epoch_end_callback epoch 943 lr 1.0000001e-06
3094 Epoch 945/10000
3095 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3096 epoch_end_callback epoch 944 lr 1.0000001e-06
3097 Epoch 946/10000
3098 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3099 epoch_end_callback epoch 945 lr 1.0000001e-06
3100 Epoch 947/10000
3101 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3102 epoch_end_callback epoch 946 lr 1.0000001e-06
3103 Epoch 948/10000
3104 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3104 .0027 - val_mean_squared_error: 0.0027
3105 epoch_end_callback epoch 947 lr 1.0000001e-06
3106 Epoch 949/10000
3107 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3108 epoch_end_callback epoch 948 lr 1.0000001e-06
3109 Epoch 950/10000
3110 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3111
3112 Epoch 00950: saving model to model/model_best.h5
3113 epoch_end_callback epoch 949 lr 1.0000001e-06
3114 Epoch 951/10000
3115 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3116 epoch_end_callback epoch 950 lr 1.0000001e-06
3117 Epoch 952/10000
3118 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3119 epoch_end_callback epoch 951 lr 1.0000001e-06
3120 Epoch 953/10000
3121 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3122 epoch_end_callback epoch 952 lr 1.0000001e-06
3123 Epoch 954/10000
3124 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3125 epoch_end_callback epoch 953 lr 1.0000001e-06
3126 Epoch 955/10000
3127 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3128 epoch_end_callback epoch 954 lr 1.0000001e-06
3129 Epoch 956/10000
3130 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3131 epoch_end_callback epoch 955 lr 1.0000001e-06
3132 Epoch 957/10000
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3133 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3134 epoch_end_callback epoch 956 lr 1.0000001e-06
3135 Epoch 958/10000
3136 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3137 epoch_end_callback epoch 957 lr 1.0000001e-06
3138 Epoch 959/10000
3139 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3140 epoch_end_callback epoch 958 lr 1.0000001e-06
3141 Epoch 960/10000
3142 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3143
3144 Epoch 00960: saving model to model/model_best.h5
3145 epoch_end_callback epoch 959 lr 1.0000001e-06
3146 Epoch 961/10000
3147 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3148 epoch_end_callback epoch 960 lr 1.0000001e-06
3149 Epoch 962/10000
3150 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3151 epoch_end_callback epoch 961 lr 1.0000001e-06
3152 Epoch 963/10000
3153 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3154 epoch_end_callback epoch 962 lr 1.0000001e-06
3155 Epoch 964/10000
3156 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3157 epoch_end_callback epoch 963 lr 1.0000001e-06
3158 Epoch 965/10000
3159 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3160 epoch_end_callback epoch 964 lr 1.0000001e-06
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3161 Epoch 966/10000
3162   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3163 epoch_end_callback epoch 965 lr 1.0000001e-06
3164 Epoch 967/10000
3165   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3166 epoch_end_callback epoch 966 lr 1.0000001e-06
3167 Epoch 968/10000
3168   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3169 epoch_end_callback epoch 967 lr 1.0000001e-06
3170 Epoch 969/10000
3171   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3172 epoch_end_callback epoch 968 lr 1.0000001e-06
3173 Epoch 970/10000
3174   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3175
3176 Epoch 00970: saving model to model/model_best.h5
3177 epoch_end_callback epoch 969 lr 1.0000001e-06
3178 Epoch 971/10000
3179   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3180 epoch_end_callback epoch 970 lr 1.0000001e-06
3181 Epoch 972/10000
3182   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3183 epoch_end_callback epoch 971 lr 1.0000001e-06
3184 Epoch 973/10000
3185   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3186 epoch_end_callback epoch 972 lr 1.0000001e-06
3187 Epoch 974/10000
3188   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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3189 epoch_end_callback epoch 973 lr 1.0000001e-06
3190 Epoch 975/10000
3191   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3192 epoch_end_callback epoch 974 lr 1.0000001e-06
3193 Epoch 976/10000
3194   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3195 epoch_end_callback epoch 975 lr 1.0000001e-06
3196 Epoch 977/10000
3197   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3198 epoch_end_callback epoch 976 lr 1.0000001e-06
3199 Epoch 978/10000
3200   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3201 epoch_end_callback epoch 977 lr 1.0000001e-06
3202 Epoch 979/10000
3203   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3204 epoch_end_callback epoch 978 lr 1.0000001e-06
3205 Epoch 980/10000
3206   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3207
3208 Epoch 00980: saving model to model/model_best.h5
3209 epoch_end_callback epoch 979 lr 1.0000001e-06
3210 Epoch 981/10000
3211   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3212 epoch_end_callback epoch 980 lr 1.0000001e-06
3213 Epoch 982/10000
3214   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3215 epoch_end_callback epoch 981 lr 1.0000001e-06
3216 Epoch 983/10000
3217   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3217 .0027 - val_mean_squared_error: 0.0027
3218 epoch_end_callback epoch 982 lr 1.0000001e-06
3219 Epoch 984/10000
3220 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3221 epoch_end_callback epoch 983 lr 1.0000001e-06
3222 Epoch 985/10000
3223 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3224 epoch_end_callback epoch 984 lr 1.0000001e-06
3225 Epoch 986/10000
3226 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3227 epoch_end_callback epoch 985 lr 1.0000001e-06
3228 Epoch 987/10000
3229 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3230 epoch_end_callback epoch 986 lr 1.0000001e-06
3231 Epoch 988/10000
3232 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3233 epoch_end_callback epoch 987 lr 1.0000001e-06
3234 Epoch 989/10000
3235 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3236 epoch_end_callback epoch 988 lr 1.0000001e-06
3237 Epoch 990/10000
3238 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3239
3240 Epoch 00990: saving model to model/model_best.h5
3241 epoch_end_callback epoch 989 lr 1.0000001e-06
3242 Epoch 991/10000
3243 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3244 epoch_end_callback epoch 990 lr 1.0000001e-06
3245 Epoch 992/10000
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3246 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3247 epoch_end_callback epoch 991 lr 1.0000001e-06
3248 Epoch 993/10000
3249 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3250 epoch_end_callback epoch 992 lr 1.0000001e-06
3251 Epoch 994/10000
3252 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3253 epoch_end_callback epoch 993 lr 1.0000001e-06
3254 Epoch 995/10000
3255 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3256 epoch_end_callback epoch 994 lr 1.0000001e-06
3257 Epoch 996/10000
3258 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3259 epoch_end_callback epoch 995 lr 1.0000001e-06
3260 Epoch 997/10000
3261 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3262 epoch_end_callback epoch 996 lr 1.0000001e-06
3263 Epoch 998/10000
3264 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3265 epoch_end_callback epoch 997 lr 1.0000001e-06
3266 Epoch 999/10000
3267 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3268 epoch_end_callback epoch 998 lr 1.0000001e-06
3269 Epoch 1000/10000
3270 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3271
3272 Epoch 01000: saving model to model/model_best.h5
3273 epoch_end_callback epoch 999 lr 1.0000001e-06
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3274 Epoch 1001/10000
3275   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3276 epoch_end_callback epoch 1000 lr 1.0000001e-06
3277 Epoch 1002/10000
3278   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3279 epoch_end_callback epoch 1001 lr 1.0000001e-06
3280 Epoch 1003/10000
3281   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3282 epoch_end_callback epoch 1002 lr 1.0000001e-06
3283 Epoch 1004/10000
3284   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3285 epoch_end_callback epoch 1003 lr 1.0000001e-06
3286 Epoch 1005/10000
3287   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3288 epoch_end_callback epoch 1004 lr 1.0000001e-06
3289 Epoch 1006/10000
3290   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3291 epoch_end_callback epoch 1005 lr 1.0000001e-06
3292 Epoch 1007/10000
3293   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3294 epoch_end_callback epoch 1006 lr 1.0000001e-06
3295 Epoch 1008/10000
3296   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3297 epoch_end_callback epoch 1007 lr 1.0000001e-06
3298 Epoch 1009/10000
3299   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3300 epoch_end_callback epoch 1008 lr 1.0000001e-06
3301 Epoch 1010/10000
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3302 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3303
3304 Epoch 01010: saving model to model/model_best.h5
3305 epoch_end_callback epoch 1009 lr 1.0000001e-06
3306 Epoch 1011/10000
3307 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3308 epoch_end_callback epoch 1010 lr 1.0000001e-06
3309 Epoch 1012/10000
3310 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3311 epoch_end_callback epoch 1011 lr 1.0000001e-06
3312 Epoch 1013/10000
3313 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3314 epoch_end_callback epoch 1012 lr 1.0000001e-06
3315 Epoch 1014/10000
3316 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3317 epoch_end_callback epoch 1013 lr 1.0000001e-06
3318 Epoch 1015/10000
3319 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3320 epoch_end_callback epoch 1014 lr 1.0000001e-06
3321 Epoch 1016/10000
3322 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3323 epoch_end_callback epoch 1015 lr 1.0000001e-06
3324 Epoch 1017/10000
3325 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3326 epoch_end_callback epoch 1016 lr 1.0000001e-06
3327 Epoch 1018/10000
3328 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3329 epoch_end_callback epoch 1017 lr 1.0000001e-06
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3330 Epoch 1019/10000
3331   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3332 epoch_end_callback epoch 1018 lr 1.0000001e-06
3333 Epoch 1020/10000
3334   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3335
3336 Epoch 1020: saving model to model/model_best.h5
3337 epoch_end_callback epoch 1019 lr 1.0000001e-06
3338 Epoch 1021/10000
3339   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3340 epoch_end_callback epoch 1020 lr 1.0000001e-06
3341 Epoch 1022/10000
3342   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3343 epoch_end_callback epoch 1021 lr 1.0000001e-06
3344 Epoch 1023/10000
3345   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3346 epoch_end_callback epoch 1022 lr 1.0000001e-06
3347 Epoch 1024/10000
3348   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3349
3350 Epoch 1024: ReduceLROnPlateau reducing learning rate to 1e-06.
3351 epoch_end_callback epoch 1023 lr 1.0000001e-06
3352 Epoch 1025/10000
3353   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3354 epoch_end_callback epoch 1024 lr 1e-06
3355 Epoch 1026/10000
3356   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3357 epoch_end_callback epoch 1025 lr 1e-06
3358 Epoch 1027/10000
```



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3359 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3360 epoch_end_callback epoch 1026 lr 1e-06
3361 Epoch 1028/10000
3362 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3363 epoch_end_callback epoch 1027 lr 1e-06
3364 Epoch 1029/10000
3365 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3366 epoch_end_callback epoch 1028 lr 1e-06
3367 Epoch 1030/10000
3368 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3369
3370 Epoch 1030: saving model to model/model_best.h5
3371 epoch_end_callback epoch 1029 lr 1e-06
3372 Epoch 1031/10000
3373 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3374 epoch_end_callback epoch 1030 lr 1e-06
3375 Epoch 1032/10000
3376 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3377 epoch_end_callback epoch 1031 lr 1e-06
3378 Epoch 1033/10000
3379 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3380 epoch_end_callback epoch 1032 lr 1e-06
3381 Epoch 1034/10000
3382 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3383 epoch_end_callback epoch 1033 lr 1e-06
3384 Epoch 1035/10000
3385 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3386 epoch_end_callback epoch 1034 lr 1e-06
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3387 Epoch 1036/10000
3388   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3389 epoch_end_callback epoch 1035 lr 1e-06
3390 Epoch 1037/10000
3391   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3392 epoch_end_callback epoch 1036 lr 1e-06
3393 Epoch 1038/10000
3394   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3395 epoch_end_callback epoch 1037 lr 1e-06
3396 Epoch 1039/10000
3397   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3398 epoch_end_callback epoch 1038 lr 1e-06
3399 Epoch 1040/10000
3400   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3401
3402 Epoch 1040: saving model to model/model_best.h5
3403 epoch_end_callback epoch 1039 lr 1e-06
3404 Epoch 1041/10000
3405   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3406 epoch_end_callback epoch 1040 lr 1e-06
3407 Epoch 1042/10000
3408   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3409 epoch_end_callback epoch 1041 lr 1e-06
3410 Epoch 1043/10000
3411   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3412 epoch_end_callback epoch 1042 lr 1e-06
3413 Epoch 1044/10000
3414   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
```

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3415 epoch_end_callback epoch 1043 lr 1e-06
3416 Epoch 1045/10000
3417   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3418 epoch_end_callback epoch 1044 lr 1e-06
3419 Epoch 1046/10000
3420   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3421 epoch_end_callback epoch 1045 lr 1e-06
3422 Epoch 1047/10000
3423   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3424 epoch_end_callback epoch 1046 lr 1e-06
3425 Epoch 1048/10000
3426   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3427 epoch_end_callback epoch 1047 lr 1e-06
3428 Epoch 1049/10000
3429   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3430 epoch_end_callback epoch 1048 lr 1e-06
3431 Epoch 1050/10000
3432   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3433
3434 Epoch 01050: saving model to model/model_best.h5
3435 epoch_end_callback epoch 1049 lr 1e-06
3436 Epoch 1051/10000
3437   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3438 epoch_end_callback epoch 1050 lr 1e-06
3439 Epoch 1052/10000
3440   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3441 epoch_end_callback epoch 1051 lr 1e-06
3442 Epoch 1053/10000
3443   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3443 .0027 - val_mean_squared_error: 0.0027
3444 epoch_end_callback epoch 1052 lr 1e-06
3445 Epoch 1054/10000
3446 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3447 epoch_end_callback epoch 1053 lr 1e-06
3448 Epoch 1055/10000
3449 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3450 epoch_end_callback epoch 1054 lr 1e-06
3451 Epoch 1056/10000
3452 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3453 epoch_end_callback epoch 1055 lr 1e-06
3454 Epoch 1057/10000
3455 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3456 epoch_end_callback epoch 1056 lr 1e-06
3457 Epoch 1058/10000
3458 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3459 epoch_end_callback epoch 1057 lr 1e-06
3460 Epoch 1059/10000
3461 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3462 epoch_end_callback epoch 1058 lr 1e-06
3463 Epoch 1060/10000
3464 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3465
3466 Epoch 01060: saving model to model/model_best.h5
3467 epoch_end_callback epoch 1059 lr 1e-06
3468 Epoch 1061/10000
3469 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3470 epoch_end_callback epoch 1060 lr 1e-06
3471 Epoch 1062/10000
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3472 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3473 epoch_end_callback epoch 1061 lr 1e-06
3474 Epoch 1063/10000
3475 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3476 epoch_end_callback epoch 1062 lr 1e-06
3477 Epoch 1064/10000
3478 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3479 epoch_end_callback epoch 1063 lr 1e-06
3480 Epoch 1065/10000
3481 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3482 epoch_end_callback epoch 1064 lr 1e-06
3483 Epoch 1066/10000
3484 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3485 epoch_end_callback epoch 1065 lr 1e-06
3486 Epoch 1067/10000
3487 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3488 epoch_end_callback epoch 1066 lr 1e-06
3489 Epoch 1068/10000
3490 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3491 epoch_end_callback epoch 1067 lr 1e-06
3492 Epoch 1069/10000
3493 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3494 epoch_end_callback epoch 1068 lr 1e-06
3495 Epoch 1070/10000
3496 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3497
3498 Epoch 01070: saving model to model/model_best.h5
3499 epoch_end_callback epoch 1069 lr 1e-06
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3500 Epoch 1071/10000
3501   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3502 epoch_end_callback epoch 1070 lr 1e-06
3503 Epoch 1072/10000
3504   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3505 epoch_end_callback epoch 1071 lr 1e-06
3506 Epoch 1073/10000
3507   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3508 epoch_end_callback epoch 1072 lr 1e-06
3509 Epoch 1074/10000
3510   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3511 epoch_end_callback epoch 1073 lr 1e-06
3512 Epoch 1075/10000
3513   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3514 epoch_end_callback epoch 1074 lr 1e-06
3515 Epoch 1076/10000
3516   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3517 epoch_end_callback epoch 1075 lr 1e-06
3518 Epoch 1077/10000
3519   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3520 epoch_end_callback epoch 1076 lr 1e-06
3521 Epoch 1078/10000
3522   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3523 epoch_end_callback epoch 1077 lr 1e-06
3524 Epoch 1079/10000
3525   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3526 epoch_end_callback epoch 1078 lr 1e-06
3527 Epoch 1080/10000
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3528 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3529
3530 Epoch 01080: saving model to model/model_best.h5
3531 epoch_end_callback epoch 1079 lr 1e-06
3532 Epoch 1081/10000
3533 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3534 epoch_end_callback epoch 1080 lr 1e-06
3535 Epoch 1082/10000
3536 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3537 epoch_end_callback epoch 1081 lr 1e-06
3538 Epoch 1083/10000
3539 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3540 epoch_end_callback epoch 1082 lr 1e-06
3541 Epoch 1084/10000
3542 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3543 epoch_end_callback epoch 1083 lr 1e-06
3544 Epoch 1085/10000
3545 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3546 epoch_end_callback epoch 1084 lr 1e-06
3547 Epoch 1086/10000
3548 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3549 epoch_end_callback epoch 1085 lr 1e-06
3550 Epoch 1087/10000
3551 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3552 epoch_end_callback epoch 1086 lr 1e-06
3553 Epoch 1088/10000
3554 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3555 epoch_end_callback epoch 1087 lr 1e-06
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3556 Epoch 1089/10000
3557   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3558 epoch_end_callback epoch 1088 lr 1e-06
3559 Epoch 1090/10000
3560   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3561
3562 Epoch 1090: saving model to model/model_best.h5
3563 epoch_end_callback epoch 1089 lr 1e-06
3564 Epoch 1091/10000
3565   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3566 epoch_end_callback epoch 1090 lr 1e-06
3567 Epoch 1092/10000
3568   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3569 epoch_end_callback epoch 1091 lr 1e-06
3570 Epoch 1093/10000
3571   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3572 epoch_end_callback epoch 1092 lr 1e-06
3573 Epoch 1094/10000
3574   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3575 epoch_end_callback epoch 1093 lr 1e-06
3576 Epoch 1095/10000
3577   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3578 epoch_end_callback epoch 1094 lr 1e-06
3579 Epoch 1096/10000
3580   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3581 epoch_end_callback epoch 1095 lr 1e-06
3582 Epoch 1097/10000
3583   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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3584 epoch_end_callback epoch 1096 lr 1e-06
3585 Epoch 1098/10000
3586 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3587 epoch_end_callback epoch 1097 lr 1e-06
3588 Epoch 1099/10000
3589 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3590 epoch_end_callback epoch 1098 lr 1e-06
3591 Epoch 1100/10000
3592 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3593
3594 Epoch 01100: saving model to model/model_best.h5
3595 epoch_end_callback epoch 1099 lr 1e-06
3596 Epoch 1101/10000
3597 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3598 epoch_end_callback epoch 1100 lr 1e-06
3599 Epoch 1102/10000
3600 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3601 epoch_end_callback epoch 1101 lr 1e-06
3602 Epoch 1103/10000
3603 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3604 epoch_end_callback epoch 1102 lr 1e-06
3605 Epoch 1104/10000
3606 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3607 epoch_end_callback epoch 1103 lr 1e-06
3608 Epoch 1105/10000
3609 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3610 epoch_end_callback epoch 1104 lr 1e-06
3611 Epoch 1106/10000
3612 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3612 .0027 - val_mean_squared_error: 0.0027
3613 epoch_end_callback epoch 1105 lr 1e-06
3614 Epoch 1107/10000
3615 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3616 epoch_end_callback epoch 1106 lr 1e-06
3617 Epoch 1108/10000
3618 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3619 epoch_end_callback epoch 1107 lr 1e-06
3620 Epoch 1109/10000
3621 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3622 epoch_end_callback epoch 1108 lr 1e-06
3623 Epoch 1110/10000
3624 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3625
3626 Epoch 01110: saving model to model/model_best.h5
3627 epoch_end_callback epoch 1109 lr 1e-06
3628 Epoch 1111/10000
3629 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3630 epoch_end_callback epoch 1110 lr 1e-06
3631 Epoch 1112/10000
3632 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3633 epoch_end_callback epoch 1111 lr 1e-06
3634 Epoch 1113/10000
3635 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3636 epoch_end_callback epoch 1112 lr 1e-06
3637 Epoch 1114/10000
3638 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3639 epoch_end_callback epoch 1113 lr 1e-06
3640 Epoch 1115/10000
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3641 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3642 epoch_end_callback epoch 1114 lr 1e-06
3643 Epoch 1116/10000
3644 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3645 epoch_end_callback epoch 1115 lr 1e-06
3646 Epoch 1117/10000
3647 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3648 epoch_end_callback epoch 1116 lr 1e-06
3649 Epoch 1118/10000
3650 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3651 epoch_end_callback epoch 1117 lr 1e-06
3652 Epoch 1119/10000
3653 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3654 epoch_end_callback epoch 1118 lr 1e-06
3655 Epoch 1120/10000
3656 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3657
3658 Epoch 01120: saving model to model/model_best.h5
3659 epoch_end_callback epoch 1119 lr 1e-06
3660 Epoch 1121/10000
3661 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3662 epoch_end_callback epoch 1120 lr 1e-06
3663 Epoch 1122/10000
3664 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3665 epoch_end_callback epoch 1121 lr 1e-06
3666 Epoch 1123/10000
3667 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3668 epoch_end_callback epoch 1122 lr 1e-06
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3669 Epoch 1124/10000
3670   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3671   .0027 - val_mean_squared_error: 0.0027
3672 epoch_end_callback epoch 1123 lr 1e-06
3673 Epoch 1125/10000
3674   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3675   .0027 - val_mean_squared_error: 0.0027
3676 epoch_end_callback epoch 1124 lr 1e-06
3677 Epoch 1126/10000
3678   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3679   .0027 - val_mean_squared_error: 0.0027
3680 epoch_end_callback epoch 1125 lr 1e-06
3681 Epoch 1127/10000
3682   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3683   .0027 - val_mean_squared_error: 0.0027
3684 epoch_end_callback epoch 1126 lr 1e-06
3685 Epoch 1128/10000
3686   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3687   .0027 - val_mean_squared_error: 0.0027
3688 epoch_end_callback epoch 1127 lr 1e-06
3689 Epoch 1129/10000
3690   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3691   .0027 - val_mean_squared_error: 0.0027
3692 epoch_end_callback epoch 1128 lr 1e-06
3693 Epoch 1130/10000
3694   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3695   .0027 - val_mean_squared_error: 0.0027
3696 Epoch 01130: saving model to model/model_best.h5
3697 epoch_end_callback epoch 1129 lr 1e-06
3698 Epoch 1131/10000
3699   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3700   .0027 - val_mean_squared_error: 0.0027
3701 epoch_end_callback epoch 1130 lr 1e-06
3702 Epoch 1132/10000
3703   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3704   .0027 - val_mean_squared_error: 0.0027
```

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3697 epoch_end_callback epoch 1131 lr 1e-06
3698 Epoch 1133/10000
3699 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3700 epoch_end_callback epoch 1132 lr 1e-06
3701 Epoch 1134/10000
3702 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3703 epoch_end_callback epoch 1133 lr 1e-06
3704 Epoch 1135/10000
3705 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3706 epoch_end_callback epoch 1134 lr 1e-06
3707 Epoch 1136/10000
3708 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3709 epoch_end_callback epoch 1135 lr 1e-06
3710 Epoch 1137/10000
3711 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3712 epoch_end_callback epoch 1136 lr 1e-06
3713 Epoch 1138/10000
3714 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3715 epoch_end_callback epoch 1137 lr 1e-06
3716 Epoch 1139/10000
3717 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3718 epoch_end_callback epoch 1138 lr 1e-06
3719 Epoch 1140/10000
3720 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3721
3722 Epoch 01140: saving model to model/model_best.h5
3723 epoch_end_callback epoch 1139 lr 1e-06
3724 Epoch 1141/10000
3725 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3725 .0027 - val_mean_squared_error: 0.0027
3726 epoch_end_callback epoch 1140 lr 1e-06
3727 Epoch 1142/10000
3728 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3729 epoch_end_callback epoch 1141 lr 1e-06
3730 Epoch 1143/10000
3731 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3732 epoch_end_callback epoch 1142 lr 1e-06
3733 Epoch 1144/10000
3734 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3735 epoch_end_callback epoch 1143 lr 1e-06
3736 Epoch 1145/10000
3737 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3738 epoch_end_callback epoch 1144 lr 1e-06
3739 Epoch 1146/10000
3740 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3741 epoch_end_callback epoch 1145 lr 1e-06
3742 Epoch 1147/10000
3743 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3744 epoch_end_callback epoch 1146 lr 1e-06
3745 Epoch 1148/10000
3746 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3747 epoch_end_callback epoch 1147 lr 1e-06
3748 Epoch 1149/10000
3749 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3750 epoch_end_callback epoch 1148 lr 1e-06
3751 Epoch 1150/10000
3752 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
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3753
3754 Epoch 01150: saving model to model/model_best.h5
3755 epoch_end_callback epoch 1149 lr 1e-06
3756 Epoch 1151/10000
3757   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3758 epoch_end_callback epoch 1150 lr 1e-06
3759 Epoch 1152/10000
3760   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3761 epoch_end_callback epoch 1151 lr 1e-06
3762 Epoch 1153/10000
3763   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3764 epoch_end_callback epoch 1152 lr 1e-06
3765 Epoch 1154/10000
3766   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3767 epoch_end_callback epoch 1153 lr 1e-06
3768 Epoch 1155/10000
3769   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3770 epoch_end_callback epoch 1154 lr 1e-06
3771 Epoch 1156/10000
3772   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3773 epoch_end_callback epoch 1155 lr 1e-06
3774 Epoch 1157/10000
3775   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3776 epoch_end_callback epoch 1156 lr 1e-06
3777 Epoch 1158/10000
3778   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3779 epoch_end_callback epoch 1157 lr 1e-06
3780 Epoch 1159/10000
3781   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
```

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3781 .0027 - val_mean_squared_error: 0.0027
3782 epoch_end_callback epoch 1158 lr 1e-06
3783 Epoch 1160/10000
3784 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3785
3786 Epoch 01160: saving model to model/model_best.h5
3787 epoch_end_callback epoch 1159 lr 1e-06
3788 Epoch 1161/10000
3789 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3790 epoch_end_callback epoch 1160 lr 1e-06
3791 Epoch 1162/10000
3792 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3793 epoch_end_callback epoch 1161 lr 1e-06
3794 Epoch 1163/10000
3795 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3796 epoch_end_callback epoch 1162 lr 1e-06
3797 Epoch 1164/10000
3798 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3799 epoch_end_callback epoch 1163 lr 1e-06
3800 Epoch 1165/10000
3801 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3802 epoch_end_callback epoch 1164 lr 1e-06
3803 Epoch 1166/10000
3804 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3805 epoch_end_callback epoch 1165 lr 1e-06
3806 Epoch 1167/10000
3807 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
3808 epoch_end_callback epoch 1166 lr 1e-06
3809 Epoch 1168/10000
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3810 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3811 epoch_end_callback epoch 1167 lr 1e-06
3812 Epoch 1169/10000
3813 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3814 epoch_end_callback epoch 1168 lr 1e-06
3815 Epoch 1170/10000
3816 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3817
3818 Epoch 01170: saving model to model/model_best.h5
3819 epoch_end_callback epoch 1169 lr 1e-06
3820 Epoch 1171/10000
3821 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3822 epoch_end_callback epoch 1170 lr 1e-06
3823 Epoch 1172/10000
3824 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3825 epoch_end_callback epoch 1171 lr 1e-06
3826 Epoch 1173/10000
3827 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3828 epoch_end_callback epoch 1172 lr 1e-06
3829 Epoch 1174/10000
3830 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3831 epoch_end_callback epoch 1173 lr 1e-06
3832 Epoch 1175/10000
3833 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3834 epoch_end_callback epoch 1174 lr 1e-06
3835 Epoch 1176/10000
3836 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3837 epoch_end_callback epoch 1175 lr 1e-06
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3838 Epoch 1177/10000
3839   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3840 epoch_end_callback epoch 1176 lr 1e-06
3841 Epoch 1178/10000
3842   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3843 epoch_end_callback epoch 1177 lr 1e-06
3844 Epoch 1179/10000
3845   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3846 epoch_end_callback epoch 1178 lr 1e-06
3847 Epoch 1180/10000
3848   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3849
3850 Epoch 1180: saving model to model/model_best.h5
3851 epoch_end_callback epoch 1179 lr 1e-06
3852 Epoch 1181/10000
3853   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3854 epoch_end_callback epoch 1180 lr 1e-06
3855 Epoch 1182/10000
3856   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3857 epoch_end_callback epoch 1181 lr 1e-06
3858 Epoch 1183/10000
3859   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3860 epoch_end_callback epoch 1182 lr 1e-06
3861 Epoch 1184/10000
3862   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3863 epoch_end_callback epoch 1183 lr 1e-06
3864 Epoch 1185/10000
3865   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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3866 epoch_end_callback epoch 1184 lr 1e-06
3867 Epoch 1186/10000
3868 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3869 epoch_end_callback epoch 1185 lr 1e-06
3870 Epoch 1187/10000
3871 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3872 epoch_end_callback epoch 1186 lr 1e-06
3873 Epoch 1188/10000
3874 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3875 epoch_end_callback epoch 1187 lr 1e-06
3876 Epoch 1189/10000
3877 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3878 epoch_end_callback epoch 1188 lr 1e-06
3879 Epoch 1190/10000
3880 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3881
3882 Epoch 01190: saving model to model/model_best.h5
3883 epoch_end_callback epoch 1189 lr 1e-06
3884 Epoch 1191/10000
3885 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3886 epoch_end_callback epoch 1190 lr 1e-06
3887 Epoch 1192/10000
3888 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3889 epoch_end_callback epoch 1191 lr 1e-06
3890 Epoch 1193/10000
3891 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3892 epoch_end_callback epoch 1192 lr 1e-06
3893 Epoch 1194/10000
3894 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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3894 .0027 - val_mean_squared_error: 0.0027
3895 epoch_end_callback epoch 1193 lr 1e-06
3896 Epoch 1195/10000
3897 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3898 epoch_end_callback epoch 1194 lr 1e-06
3899 Epoch 1196/10000
3900 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3901 epoch_end_callback epoch 1195 lr 1e-06
3902 Epoch 1197/10000
3903 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3904 epoch_end_callback epoch 1196 lr 1e-06
3905 Epoch 1198/10000
3906 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3907 epoch_end_callback epoch 1197 lr 1e-06
3908 Epoch 1199/10000
3909 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3910 epoch_end_callback epoch 1198 lr 1e-06
3911 Epoch 1200/10000
3912 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3913
3914 Epoch 01200: saving model to model/model_best.h5
3915 epoch_end_callback epoch 1199 lr 1e-06
3916 Epoch 1201/10000
3917 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3918 epoch_end_callback epoch 1200 lr 1e-06
3919 Epoch 1202/10000
3920 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
3921 epoch_end_callback epoch 1201 lr 1e-06
3922 Epoch 1203/10000
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3923 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3924 epoch_end_callback epoch 1202 lr 1e-06
3925 Epoch 1204/10000
3926 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3927 epoch_end_callback epoch 1203 lr 1e-06
3928 Epoch 1205/10000
3929 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3930 epoch_end_callback epoch 1204 lr 1e-06
3931 Epoch 1206/10000
3932 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3933 epoch_end_callback epoch 1205 lr 1e-06
3934 Epoch 1207/10000
3935 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3936 epoch_end_callback epoch 1206 lr 1e-06
3937 Epoch 1208/10000
3938 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3939 epoch_end_callback epoch 1207 lr 1e-06
3940 Epoch 1209/10000
3941 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3942 epoch_end_callback epoch 1208 lr 1e-06
3943 Epoch 1210/10000
3944 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3945
3946 Epoch 01210: saving model to model/model_best.h5
3947 epoch_end_callback epoch 1209 lr 1e-06
3948 Epoch 1211/10000
3949 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3950 epoch_end_callback epoch 1210 lr 1e-06
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3951 Epoch 1212/10000
3952   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3953   .0027 - val_mean_squared_error: 0.0027
3954 epoch_end_callback epoch 1211 lr 1e-06
3955 Epoch 1213/10000
3956   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3957   .0027 - val_mean_squared_error: 0.0027
3958 epoch_end_callback epoch 1212 lr 1e-06
3959 Epoch 1214/10000
3960   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3961   .0027 - val_mean_squared_error: 0.0027
3962 epoch_end_callback epoch 1214 lr 1e-06
3963 Epoch 1215/10000
3964   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3965   .0027 - val_mean_squared_error: 0.0027
3966 epoch_end_callback epoch 1215 lr 1e-06
3967 Epoch 1216/10000
3968   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3969   .0027 - val_mean_squared_error: 0.0027
3970 epoch_end_callback epoch 1216 lr 1e-06
3971 Epoch 1217/10000
3972   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3973   .0027 - val_mean_squared_error: 0.0027
3974 epoch_end_callback epoch 1217 lr 1e-06
3975 Epoch 1218/10000
3976   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
3977   .0027 - val_mean_squared_error: 0.0027
3978 Epoch 01220: saving model to model/model_best.h5
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3979 epoch_end_callback epoch 1219 lr 1e-06
3980 Epoch 1221/10000
3981   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3982 epoch_end_callback epoch 1220 lr 1e-06
3983 Epoch 1222/10000
3984   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3985 epoch_end_callback epoch 1221 lr 1e-06
3986 Epoch 1223/10000
3987   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3988 epoch_end_callback epoch 1222 lr 1e-06
3989 Epoch 1224/10000
3990   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3991 epoch_end_callback epoch 1223 lr 1e-06
3992 Epoch 1225/10000
3993   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3994 epoch_end_callback epoch 1224 lr 1e-06
3995 Epoch 1226/10000
3996   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
3997 epoch_end_callback epoch 1225 lr 1e-06
3998 Epoch 1227/10000
3999   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4000 epoch_end_callback epoch 1226 lr 1e-06
4001 Epoch 1228/10000
4002   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4003 epoch_end_callback epoch 1227 lr 1e-06
4004 Epoch 1229/10000
4005   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4006 epoch_end_callback epoch 1228 lr 1e-06
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4007 Epoch 1230/10000
4008   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4009
4010 Epoch 01230: saving model to model/model_best.h5
4011 epoch_end_callback epoch 1229 lr 1e-06
4012 Epoch 1231/10000
4013   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4014 epoch_end_callback epoch 1230 lr 1e-06
4015 Epoch 1232/10000
4016   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4017 epoch_end_callback epoch 1231 lr 1e-06
4018 Epoch 1233/10000
4019   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4020 epoch_end_callback epoch 1232 lr 1e-06
4021 Epoch 1234/10000
4022   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4023 epoch_end_callback epoch 1233 lr 1e-06
4024 Epoch 1235/10000
4025   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4026 epoch_end_callback epoch 1234 lr 1e-06
4027 Epoch 1236/10000
4028   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4029 epoch_end_callback epoch 1235 lr 1e-06
4030 Epoch 1237/10000
4031   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4032 epoch_end_callback epoch 1236 lr 1e-06
4033 Epoch 1238/10000
4034   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4035 epoch_end_callback epoch 1237 lr 1e-06
4036 Epoch 1239/10000
4037 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4038 epoch_end_callback epoch 1238 lr 1e-06
4039 Epoch 1240/10000
4040 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4041
4042 Epoch 01240: saving model to model/model_best.h5
4043 epoch_end_callback epoch 1239 lr 1e-06
4044 Epoch 1241/10000
4045 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4046 epoch_end_callback epoch 1240 lr 1e-06
4047 Epoch 1242/10000
4048 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4049 epoch_end_callback epoch 1241 lr 1e-06
4050 Epoch 1243/10000
4051 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4052 epoch_end_callback epoch 1242 lr 1e-06
4053 Epoch 1244/10000
4054 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4055 epoch_end_callback epoch 1243 lr 1e-06
4056 Epoch 1245/10000
4057 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4058 epoch_end_callback epoch 1244 lr 1e-06
4059 Epoch 1246/10000
4060 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4061 epoch_end_callback epoch 1245 lr 1e-06
4062 Epoch 1247/10000
4063 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4063 .0027 - val_mean_squared_error: 0.0027
4064 epoch_end_callback epoch 1246 lr 1e-06
4065 Epoch 1248/10000
4066 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4067 epoch_end_callback epoch 1247 lr 1e-06
4068 Epoch 1249/10000
4069 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4070 epoch_end_callback epoch 1248 lr 1e-06
4071 Epoch 1250/10000
4072 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4073
4074 Epoch 01250: saving model to model/model_best.h5
4075 epoch_end_callback epoch 1249 lr 1e-06
4076 Epoch 1251/10000
4077 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4078 epoch_end_callback epoch 1250 lr 1e-06
4079 Epoch 1252/10000
4080 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4081 epoch_end_callback epoch 1251 lr 1e-06
4082 Epoch 1253/10000
4083 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4084 epoch_end_callback epoch 1252 lr 1e-06
4085 Epoch 1254/10000
4086 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4087 epoch_end_callback epoch 1253 lr 1e-06
4088 Epoch 1255/10000
4089 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4090 epoch_end_callback epoch 1254 lr 1e-06
4091 Epoch 1256/10000
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4092 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4093 epoch_end_callback epoch 1255 lr 1e-06
4094 Epoch 1257/10000
4095 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4096 epoch_end_callback epoch 1256 lr 1e-06
4097 Epoch 1258/10000
4098 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4099 epoch_end_callback epoch 1257 lr 1e-06
4100 Epoch 1259/10000
4101 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4102 epoch_end_callback epoch 1258 lr 1e-06
4103 Epoch 1260/10000
4104 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4105
4106 Epoch 01260: saving model to model/model_best.h5
4107 epoch_end_callback epoch 1259 lr 1e-06
4108 Epoch 1261/10000
4109 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4110 epoch_end_callback epoch 1260 lr 1e-06
4111 Epoch 1262/10000
4112 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4113 epoch_end_callback epoch 1261 lr 1e-06
4114 Epoch 1263/10000
4115 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4116 epoch_end_callback epoch 1262 lr 1e-06
4117 Epoch 1264/10000
4118 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4119 epoch_end_callback epoch 1263 lr 1e-06
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4120 Epoch 1265/10000
4121   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4122 epoch_end_callback epoch 1264 lr 1e-06
4123 Epoch 1266/10000
4124   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4125 epoch_end_callback epoch 1265 lr 1e-06
4126 Epoch 1267/10000
4127   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4128 epoch_end_callback epoch 1266 lr 1e-06
4129 Epoch 1268/10000
4130   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4131 epoch_end_callback epoch 1267 lr 1e-06
4132 Epoch 1269/10000
4133   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4134 epoch_end_callback epoch 1268 lr 1e-06
4135 Epoch 1270/10000
4136   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4137
4138 Epoch 01270: saving model to model/model_best.h5
4139 epoch_end_callback epoch 1269 lr 1e-06
4140 Epoch 1271/10000
4141   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4142 epoch_end_callback epoch 1270 lr 1e-06
4143 Epoch 1272/10000
4144   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4145 epoch_end_callback epoch 1271 lr 1e-06
4146 Epoch 1273/10000
4147   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4148 epoch_end_callback epoch 1272 lr 1e-06
4149 Epoch 1274/10000
4150 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4151 epoch_end_callback epoch 1273 lr 1e-06
4152 Epoch 1275/10000
4153 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4154 epoch_end_callback epoch 1274 lr 1e-06
4155 Epoch 1276/10000
4156 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4157 epoch_end_callback epoch 1275 lr 1e-06
4158 Epoch 1277/10000
4159 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4160 epoch_end_callback epoch 1276 lr 1e-06
4161 Epoch 1278/10000
4162 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4163 epoch_end_callback epoch 1277 lr 1e-06
4164 Epoch 1279/10000
4165 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4166 epoch_end_callback epoch 1278 lr 1e-06
4167 Epoch 1280/10000
4168 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4169
4170 Epoch 01280: saving model to model/model_best.h5
4171 epoch_end_callback epoch 1279 lr 1e-06
4172 Epoch 1281/10000
4173 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4174 epoch_end_callback epoch 1280 lr 1e-06
4175 Epoch 1282/10000
4176 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4176 .0027 - val_mean_squared_error: 0.0027
4177 epoch_end_callback epoch 1281 lr 1e-06
4178 Epoch 1283/10000
4179 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4180 epoch_end_callback epoch 1282 lr 1e-06
4181 Epoch 1284/10000
4182 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4183 epoch_end_callback epoch 1283 lr 1e-06
4184 Epoch 1285/10000
4185 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4186 epoch_end_callback epoch 1284 lr 1e-06
4187 Epoch 1286/10000
4188 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4189 epoch_end_callback epoch 1285 lr 1e-06
4190 Epoch 1287/10000
4191 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4192 epoch_end_callback epoch 1286 lr 1e-06
4193 Epoch 1288/10000
4194 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4195 epoch_end_callback epoch 1287 lr 1e-06
4196 Epoch 1289/10000
4197 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4198 epoch_end_callback epoch 1288 lr 1e-06
4199 Epoch 1290/10000
4200 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4201
4202 Epoch 01290: saving model to model/model_best.h5
4203 epoch_end_callback epoch 1289 lr 1e-06
4204 Epoch 1291/10000
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4205 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4206 epoch_end_callback epoch 1290 lr 1e-06
4207 Epoch 1292/10000
4208 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4209 epoch_end_callback epoch 1291 lr 1e-06
4210 Epoch 1293/10000
4211 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4212 epoch_end_callback epoch 1292 lr 1e-06
4213 Epoch 1294/10000
4214 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4215 epoch_end_callback epoch 1293 lr 1e-06
4216 Epoch 1295/10000
4217 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4218 epoch_end_callback epoch 1294 lr 1e-06
4219 Epoch 1296/10000
4220 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4221 epoch_end_callback epoch 1295 lr 1e-06
4222 Epoch 1297/10000
4223 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4224 epoch_end_callback epoch 1296 lr 1e-06
4225 Epoch 1298/10000
4226 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4227 epoch_end_callback epoch 1297 lr 1e-06
4228 Epoch 1299/10000
4229 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4230 epoch_end_callback epoch 1298 lr 1e-06
4231 Epoch 1300/10000
4232 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4232 .0027 - val_mean_squared_error: 0.0027
4233
4234 Epoch 01300: saving model to model/model_best.h5
4235 epoch_end_callback epoch 1299 lr 1e-06
4236 Epoch 1301/10000
4237 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4238 epoch_end_callback epoch 1300 lr 1e-06
4239 Epoch 1302/10000
4240 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4241 epoch_end_callback epoch 1301 lr 1e-06
4242 Epoch 1303/10000
4243 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4244 epoch_end_callback epoch 1302 lr 1e-06
4245 Epoch 1304/10000
4246 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4247 epoch_end_callback epoch 1303 lr 1e-06
4248 Epoch 1305/10000
4249 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4250 epoch_end_callback epoch 1304 lr 1e-06
4251 Epoch 1306/10000
4252 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4253 epoch_end_callback epoch 1305 lr 1e-06
4254 Epoch 1307/10000
4255 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4256 epoch_end_callback epoch 1306 lr 1e-06
4257 Epoch 1308/10000
4258 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4259 epoch_end_callback epoch 1307 lr 1e-06
4260 Epoch 1309/10000
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4261 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4262 epoch_end_callback epoch 1308 lr 1e-06
4263 Epoch 1310/10000
4264 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4265
4266 Epoch 01310: saving model to model/model_best.h5
4267 epoch_end_callback epoch 1309 lr 1e-06
4268 Epoch 1311/10000
4269 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4270 epoch_end_callback epoch 1310 lr 1e-06
4271 Epoch 1312/10000
4272 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4273 epoch_end_callback epoch 1311 lr 1e-06
4274 Epoch 1313/10000
4275 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4276 epoch_end_callback epoch 1312 lr 1e-06
4277 Epoch 1314/10000
4278 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4279 epoch_end_callback epoch 1313 lr 1e-06
4280 Epoch 1315/10000
4281 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4282 epoch_end_callback epoch 1314 lr 1e-06
4283 Epoch 1316/10000
4284 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4285 epoch_end_callback epoch 1315 lr 1e-06
4286 Epoch 1317/10000
4287 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4288 epoch_end_callback epoch 1316 lr 1e-06
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4289 Epoch 1318/10000
4290   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4291 epoch_end_callback epoch 1317 lr 1e-06
4292 Epoch 1319/10000
4293   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4294 epoch_end_callback epoch 1318 lr 1e-06
4295 Epoch 1320/10000
4296   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4297
4298 Epoch 01320: saving model to model/model_best.h5
4299 epoch_end_callback epoch 1319 lr 1e-06
4300 Epoch 1321/10000
4301   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4302 epoch_end_callback epoch 1320 lr 1e-06
4303 Epoch 1322/10000
4304   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4305 epoch_end_callback epoch 1321 lr 1e-06
4306 Epoch 1323/10000
4307   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4308 epoch_end_callback epoch 1322 lr 1e-06
4309 Epoch 1324/10000
4310   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4311 epoch_end_callback epoch 1323 lr 1e-06
4312 Epoch 1325/10000
4313   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4314 epoch_end_callback epoch 1324 lr 1e-06
4315 Epoch 1326/10000
4316   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4317 epoch_end_callback epoch 1325 lr 1e-06
4318 Epoch 1327/10000
4319   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4320 epoch_end_callback epoch 1326 lr 1e-06
4321 Epoch 1328/10000
4322   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4323 epoch_end_callback epoch 1327 lr 1e-06
4324 Epoch 1329/10000
4325   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4326 epoch_end_callback epoch 1328 lr 1e-06
4327 Epoch 1330/10000
4328   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4329
4330 Epoch 01330: saving model to model/model_best.h5
4331 epoch_end_callback epoch 1329 lr 1e-06
4332 Epoch 1331/10000
4333   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4334 epoch_end_callback epoch 1330 lr 1e-06
4335 Epoch 1332/10000
4336   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4337 epoch_end_callback epoch 1331 lr 1e-06
4338 Epoch 1333/10000
4339   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4340 epoch_end_callback epoch 1332 lr 1e-06
4341 Epoch 1334/10000
4342   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4343 epoch_end_callback epoch 1333 lr 1e-06
4344 Epoch 1335/10000
4345   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4345 .0027 - val_mean_squared_error: 0.0027
4346 epoch_end_callback epoch 1334 lr 1e-06
4347 Epoch 1336/10000
4348 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4349 epoch_end_callback epoch 1335 lr 1e-06
4350 Epoch 1337/10000
4351 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4352 epoch_end_callback epoch 1336 lr 1e-06
4353 Epoch 1338/10000
4354 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4355 epoch_end_callback epoch 1337 lr 1e-06
4356 Epoch 1339/10000
4357 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4358 epoch_end_callback epoch 1338 lr 1e-06
4359 Epoch 1340/10000
4360 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4361
4362 Epoch 01340: saving model to model/model_best.h5
4363 epoch_end_callback epoch 1339 lr 1e-06
4364 Epoch 1341/10000
4365 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4366 epoch_end_callback epoch 1340 lr 1e-06
4367 Epoch 1342/10000
4368 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4369 epoch_end_callback epoch 1341 lr 1e-06
4370 Epoch 1343/10000
4371 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4372 epoch_end_callback epoch 1342 lr 1e-06
4373 Epoch 1344/10000
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4374 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4375 epoch_end_callback epoch 1343 lr 1e-06
4376 Epoch 1345/10000
4377 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4378 epoch_end_callback epoch 1344 lr 1e-06
4379 Epoch 1346/10000
4380 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4381 epoch_end_callback epoch 1345 lr 1e-06
4382 Epoch 1347/10000
4383 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4384 epoch_end_callback epoch 1346 lr 1e-06
4385 Epoch 1348/10000
4386 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4387 epoch_end_callback epoch 1347 lr 1e-06
4388 Epoch 1349/10000
4389 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4390 epoch_end_callback epoch 1348 lr 1e-06
4391 Epoch 1350/10000
4392 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4393
4394 Epoch 01350: saving model to model/model_best.h5
4395 epoch_end_callback epoch 1349 lr 1e-06
4396 Epoch 1351/10000
4397 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4398 epoch_end_callback epoch 1350 lr 1e-06
4399 Epoch 1352/10000
4400 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4401 epoch_end_callback epoch 1351 lr 1e-06
```

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4402 Epoch 1353/10000
4403   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4404 epoch_end_callback epoch 1352 lr 1e-06
4405 Epoch 1354/10000
4406   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4407 epoch_end_callback epoch 1353 lr 1e-06
4408 Epoch 1355/10000
4409   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4410 epoch_end_callback epoch 1354 lr 1e-06
4411 Epoch 1356/10000
4412   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4413 epoch_end_callback epoch 1355 lr 1e-06
4414 Epoch 1357/10000
4415   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4416 epoch_end_callback epoch 1356 lr 1e-06
4417 Epoch 1358/10000
4418   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4419 epoch_end_callback epoch 1357 lr 1e-06
4420 Epoch 1359/10000
4421   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4422 epoch_end_callback epoch 1358 lr 1e-06
4423 Epoch 1360/10000
4424   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4425
4426 Epoch 01360: saving model to model/model_best.h5
4427 epoch_end_callback epoch 1359 lr 1e-06
4428 Epoch 1361/10000
4429   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4430 epoch_end_callback epoch 1360 lr 1e-06
4431 Epoch 1362/10000
4432 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4433 epoch_end_callback epoch 1361 lr 1e-06
4434 Epoch 1363/10000
4435 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4436 epoch_end_callback epoch 1362 lr 1e-06
4437 Epoch 1364/10000
4438 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4439 epoch_end_callback epoch 1363 lr 1e-06
4440 Epoch 1365/10000
4441 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4442 epoch_end_callback epoch 1364 lr 1e-06
4443 Epoch 1366/10000
4444 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4445 epoch_end_callback epoch 1365 lr 1e-06
4446 Epoch 1367/10000
4447 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4448 epoch_end_callback epoch 1366 lr 1e-06
4449 Epoch 1368/10000
4450 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4451 epoch_end_callback epoch 1367 lr 1e-06
4452 Epoch 1369/10000
4453 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4454 epoch_end_callback epoch 1368 lr 1e-06
4455 Epoch 1370/10000
4456 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4457
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4458 Epoch 01370: saving model to model/model_best.h5
4459 epoch_end_callback epoch 1369 lr 1e-06
4460 Epoch 1371/10000
4461 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4462 epoch_end_callback epoch 1370 lr 1e-06
4463 Epoch 1372/10000
4464 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4465 epoch_end_callback epoch 1371 lr 1e-06
4466 Epoch 1373/10000
4467 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4468 epoch_end_callback epoch 1372 lr 1e-06
4469 Epoch 1374/10000
4470 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4471 epoch_end_callback epoch 1373 lr 1e-06
4472 Epoch 1375/10000
4473 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4474 epoch_end_callback epoch 1374 lr 1e-06
4475 Epoch 1376/10000
4476 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4477 epoch_end_callback epoch 1375 lr 1e-06
4478 Epoch 1377/10000
4479 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4480 epoch_end_callback epoch 1376 lr 1e-06
4481 Epoch 1378/10000
4482 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4483 epoch_end_callback epoch 1377 lr 1e-06
4484 Epoch 1379/10000
4485 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
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4486 epoch_end_callback epoch 1378 lr 1e-06
4487 Epoch 1380/10000
4488 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4489
4490 Epoch 01380: saving model to model/model_best.h5
4491 epoch_end_callback epoch 1379 lr 1e-06
4492 Epoch 1381/10000
4493 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4494 epoch_end_callback epoch 1380 lr 1e-06
4495 Epoch 1382/10000
4496 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4497 epoch_end_callback epoch 1381 lr 1e-06
4498 Epoch 1383/10000
4499 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4500 epoch_end_callback epoch 1382 lr 1e-06
4501 Epoch 1384/10000
4502 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4503 epoch_end_callback epoch 1383 lr 1e-06
4504 Epoch 1385/10000
4505 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4506 epoch_end_callback epoch 1384 lr 1e-06
4507 Epoch 1386/10000
4508 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4509 epoch_end_callback epoch 1385 lr 1e-06
4510 Epoch 1387/10000
4511 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4512 epoch_end_callback epoch 1386 lr 1e-06
4513 Epoch 1388/10000
4514 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4514 .0027 - val_mean_squared_error: 0.0027
4515 epoch_end_callback epoch 1387 lr 1e-06
4516 Epoch 1389/10000
4517 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4518 epoch_end_callback epoch 1388 lr 1e-06
4519 Epoch 1390/10000
4520 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4521
4522 Epoch 01390: saving model to model/model_best.h5
4523 epoch_end_callback epoch 1389 lr 1e-06
4524 Epoch 1391/10000
4525 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4526 epoch_end_callback epoch 1390 lr 1e-06
4527 Epoch 1392/10000
4528 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4529 epoch_end_callback epoch 1391 lr 1e-06
4530 Epoch 1393/10000
4531 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4532 epoch_end_callback epoch 1392 lr 1e-06
4533 Epoch 1394/10000
4534 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4535 epoch_end_callback epoch 1393 lr 1e-06
4536 Epoch 1395/10000
4537 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4538 epoch_end_callback epoch 1394 lr 1e-06
4539 Epoch 1396/10000
4540 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4541 epoch_end_callback epoch 1395 lr 1e-06
4542 Epoch 1397/10000
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4543 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4544 epoch_end_callback epoch 1396 lr 1e-06
4545 Epoch 1398/10000
4546 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4547 epoch_end_callback epoch 1397 lr 1e-06
4548 Epoch 1399/10000
4549 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4550 epoch_end_callback epoch 1398 lr 1e-06
4551 Epoch 1400/10000
4552 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4553
4554 Epoch 01400: saving model to model/model_best.h5
4555 epoch_end_callback epoch 1399 lr 1e-06
4556 Epoch 1401/10000
4557 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4558 epoch_end_callback epoch 1400 lr 1e-06
4559 Epoch 1402/10000
4560 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4561 epoch_end_callback epoch 1401 lr 1e-06
4562 Epoch 1403/10000
4563 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4564 epoch_end_callback epoch 1402 lr 1e-06
4565 Epoch 1404/10000
4566 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4567 epoch_end_callback epoch 1403 lr 1e-06
4568 Epoch 1405/10000
4569 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4570 epoch_end_callback epoch 1404 lr 1e-06
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4571 Epoch 1406/10000
4572   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4573 epoch_end_callback epoch 1405 lr 1e-06
4574 Epoch 1407/10000
4575   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4576 epoch_end_callback epoch 1406 lr 1e-06
4577 Epoch 1408/10000
4578   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4579 epoch_end_callback epoch 1407 lr 1e-06
4580 Epoch 1409/10000
4581   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4582 epoch_end_callback epoch 1408 lr 1e-06
4583 Epoch 1410/10000
4584   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4585
4586 Epoch 1410: saving model to model/model_best.h5
4587 epoch_end_callback epoch 1409 lr 1e-06
4588 Epoch 1411/10000
4589   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4590 epoch_end_callback epoch 1410 lr 1e-06
4591 Epoch 1412/10000
4592   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4593 epoch_end_callback epoch 1411 lr 1e-06
4594 Epoch 1413/10000
4595   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4596 epoch_end_callback epoch 1412 lr 1e-06
4597 Epoch 1414/10000
4598   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4599 epoch_end_callback epoch 1413 lr 1e-06
4600 Epoch 1415/10000
4601   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4602 epoch_end_callback epoch 1414 lr 1e-06
4603 Epoch 1416/10000
4604   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4605 epoch_end_callback epoch 1415 lr 1e-06
4606 Epoch 1417/10000
4607   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4608 epoch_end_callback epoch 1416 lr 1e-06
4609 Epoch 1418/10000
4610   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4611 epoch_end_callback epoch 1417 lr 1e-06
4612 Epoch 1419/10000
4613   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4614 epoch_end_callback epoch 1418 lr 1e-06
4615 Epoch 1420/10000
4616   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4617
4618 Epoch 01420: saving model to model/model_best.h5
4619 epoch_end_callback epoch 1419 lr 1e-06
4620 Epoch 1421/10000
4621   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4622 epoch_end_callback epoch 1420 lr 1e-06
4623 Epoch 1422/10000
4624   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4625 epoch_end_callback epoch 1421 lr 1e-06
4626 Epoch 1423/10000
4627   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4627 .0027 - val_mean_squared_error: 0.0027
4628 epoch_end_callback epoch 1422 lr 1e-06
4629 Epoch 1424/10000
4630 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4631 epoch_end_callback epoch 1423 lr 1e-06
4632 Epoch 1425/10000
4633 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4634 epoch_end_callback epoch 1424 lr 1e-06
4635 Epoch 1426/10000
4636 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4637 epoch_end_callback epoch 1425 lr 1e-06
4638 Epoch 1427/10000
4639 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4640 epoch_end_callback epoch 1426 lr 1e-06
4641 Epoch 1428/10000
4642 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4643 epoch_end_callback epoch 1427 lr 1e-06
4644 Epoch 1429/10000
4645 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4646 epoch_end_callback epoch 1428 lr 1e-06
4647 Epoch 1430/10000
4648 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4649
4650 Epoch 01430: saving model to model/model_best.h5
4651 epoch_end_callback epoch 1429 lr 1e-06
4652 Epoch 1431/10000
4653 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4654 epoch_end_callback epoch 1430 lr 1e-06
4655 Epoch 1432/10000
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4656 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4657 epoch_end_callback epoch 1431 lr 1e-06
4658 Epoch 1433/10000
4659 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4660 epoch_end_callback epoch 1432 lr 1e-06
4661 Epoch 1434/10000
4662 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4663 epoch_end_callback epoch 1433 lr 1e-06
4664 Epoch 1435/10000
4665 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4666 epoch_end_callback epoch 1434 lr 1e-06
4667 Epoch 1436/10000
4668 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4669 epoch_end_callback epoch 1435 lr 1e-06
4670 Epoch 1437/10000
4671 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4672 epoch_end_callback epoch 1436 lr 1e-06
4673 Epoch 1438/10000
4674 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4675 epoch_end_callback epoch 1437 lr 1e-06
4676 Epoch 1439/10000
4677 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4678 epoch_end_callback epoch 1438 lr 1e-06
4679 Epoch 1440/10000
4680 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4681
4682 Epoch 01440: saving model to model/model_best.h5
4683 epoch_end_callback epoch 1439 lr 1e-06
```

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4684 Epoch 1441/10000
4685   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4686 epoch_end_callback epoch 1440 lr 1e-06
4687 Epoch 1442/10000
4688   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4689 epoch_end_callback epoch 1441 lr 1e-06
4690 Epoch 1443/10000
4691   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4692 epoch_end_callback epoch 1442 lr 1e-06
4693 Epoch 1444/10000
4694   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4695 epoch_end_callback epoch 1443 lr 1e-06
4696 Epoch 1445/10000
4697   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4698 epoch_end_callback epoch 1444 lr 1e-06
4699 Epoch 1446/10000
4700   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4701 epoch_end_callback epoch 1445 lr 1e-06
4702 Epoch 1447/10000
4703   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4704 epoch_end_callback epoch 1446 lr 1e-06
4705 Epoch 1448/10000
4706   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4707 epoch_end_callback epoch 1447 lr 1e-06
4708 Epoch 1449/10000
4709   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4710 epoch_end_callback epoch 1448 lr 1e-06
4711 Epoch 1450/10000
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4712 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4713
4714 Epoch 01450: saving model to model/model_best.h5
4715 epoch_end_callback epoch 1449 lr 1e-06
4716 Epoch 1451/10000
4717 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4718 epoch_end_callback epoch 1450 lr 1e-06
4719 Epoch 1452/10000
4720 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4721 epoch_end_callback epoch 1451 lr 1e-06
4722 Epoch 1453/10000
4723 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4724 epoch_end_callback epoch 1452 lr 1e-06
4725 Epoch 1454/10000
4726 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4727 epoch_end_callback epoch 1453 lr 1e-06
4728 Epoch 1455/10000
4729 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4730 epoch_end_callback epoch 1454 lr 1e-06
4731 Epoch 1456/10000
4732 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4733 epoch_end_callback epoch 1455 lr 1e-06
4734 Epoch 1457/10000
4735 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4736 epoch_end_callback epoch 1456 lr 1e-06
4737 Epoch 1458/10000
4738 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4739 epoch_end_callback epoch 1457 lr 1e-06
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4740 Epoch 1459/10000
4741   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4742 epoch_end_callback epoch 1458 lr 1e-06
4743 Epoch 1460/10000
4744   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4745
4746 Epoch 01460: saving model to model/model_best.h5
4747 epoch_end_callback epoch 1459 lr 1e-06
4748 Epoch 1461/10000
4749   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4750 epoch_end_callback epoch 1460 lr 1e-06
4751 Epoch 1462/10000
4752   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4753 epoch_end_callback epoch 1461 lr 1e-06
4754 Epoch 1463/10000
4755   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4756 epoch_end_callback epoch 1462 lr 1e-06
4757 Epoch 1464/10000
4758   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4759 epoch_end_callback epoch 1463 lr 1e-06
4760 Epoch 1465/10000
4761   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4762 epoch_end_callback epoch 1464 lr 1e-06
4763 Epoch 1466/10000
4764   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4765 epoch_end_callback epoch 1465 lr 1e-06
4766 Epoch 1467/10000
4767   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4768 epoch_end_callback epoch 1466 lr 1e-06
4769 Epoch 1468/10000
4770 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4771 epoch_end_callback epoch 1467 lr 1e-06
4772 Epoch 1469/10000
4773 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4774 epoch_end_callback epoch 1468 lr 1e-06
4775 Epoch 1470/10000
4776 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4777
4778 Epoch 01470: saving model to model/model_best.h5
4779 epoch_end_callback epoch 1469 lr 1e-06
4780 Epoch 1471/10000
4781 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4782 epoch_end_callback epoch 1470 lr 1e-06
4783 Epoch 1472/10000
4784 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4785 epoch_end_callback epoch 1471 lr 1e-06
4786 Epoch 1473/10000
4787 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4788 epoch_end_callback epoch 1472 lr 1e-06
4789 Epoch 1474/10000
4790 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4791 epoch_end_callback epoch 1473 lr 1e-06
4792 Epoch 1475/10000
4793 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4794 epoch_end_callback epoch 1474 lr 1e-06
4795 Epoch 1476/10000
4796 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4796 .0027 - val_mean_squared_error: 0.0027
4797 epoch_end_callback epoch 1475 lr 1e-06
4798 Epoch 1477/10000
4799 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4800 epoch_end_callback epoch 1476 lr 1e-06
4801 Epoch 1478/10000
4802 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4803 epoch_end_callback epoch 1477 lr 1e-06
4804 Epoch 1479/10000
4805 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4806 epoch_end_callback epoch 1478 lr 1e-06
4807 Epoch 1480/10000
4808 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4809
4810 Epoch 01480: saving model to model/model_best.h5
4811 epoch_end_callback epoch 1479 lr 1e-06
4812 Epoch 1481/10000
4813 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4814 epoch_end_callback epoch 1480 lr 1e-06
4815 Epoch 1482/10000
4816 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4817 epoch_end_callback epoch 1481 lr 1e-06
4818 Epoch 1483/10000
4819 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4820 epoch_end_callback epoch 1482 lr 1e-06
4821 Epoch 1484/10000
4822 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4823 epoch_end_callback epoch 1483 lr 1e-06
4824 Epoch 1485/10000
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4825 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4826 epoch_end_callback epoch 1484 lr 1e-06
4827 Epoch 1486/10000
4828 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4829 epoch_end_callback epoch 1485 lr 1e-06
4830 Epoch 1487/10000
4831 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4832 epoch_end_callback epoch 1486 lr 1e-06
4833 Epoch 1488/10000
4834 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4835 epoch_end_callback epoch 1487 lr 1e-06
4836 Epoch 1489/10000
4837 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4838 epoch_end_callback epoch 1488 lr 1e-06
4839 Epoch 1490/10000
4840 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4841
4842 Epoch 01490: saving model to model/model_best.h5
4843 epoch_end_callback epoch 1489 lr 1e-06
4844 Epoch 1491/10000
4845 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4846 epoch_end_callback epoch 1490 lr 1e-06
4847 Epoch 1492/10000
4848 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4849 epoch_end_callback epoch 1491 lr 1e-06
4850 Epoch 1493/10000
4851 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4852 epoch_end_callback epoch 1492 lr 1e-06
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4853 Epoch 1494/10000
4854   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4855 epoch_end_callback epoch 1493 lr 1e-06
4856 Epoch 1495/10000
4857   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4858 epoch_end_callback epoch 1494 lr 1e-06
4859 Epoch 1496/10000
4860   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4861 epoch_end_callback epoch 1495 lr 1e-06
4862 Epoch 1497/10000
4863   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4864 epoch_end_callback epoch 1496 lr 1e-06
4865 Epoch 1498/10000
4866   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4867 epoch_end_callback epoch 1497 lr 1e-06
4868 Epoch 1499/10000
4869   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4870 epoch_end_callback epoch 1498 lr 1e-06
4871 Epoch 1500/10000
4872   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4873
4874 Epoch 01500: saving model to model/model_best.h5
4875 epoch_end_callback epoch 1499 lr 1e-06
4876 Epoch 1501/10000
4877   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4878 epoch_end_callback epoch 1500 lr 1e-06
4879 Epoch 1502/10000
4880   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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4881 epoch_end_callback epoch 1501 lr 1e-06
4882 Epoch 1503/10000
4883   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4884 epoch_end_callback epoch 1502 lr 1e-06
4885 Epoch 1504/10000
4886   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4887 epoch_end_callback epoch 1503 lr 1e-06
4888 Epoch 1505/10000
4889   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4890 epoch_end_callback epoch 1504 lr 1e-06
4891 Epoch 1506/10000
4892   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4893 epoch_end_callback epoch 1505 lr 1e-06
4894 Epoch 1507/10000
4895   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4896 epoch_end_callback epoch 1506 lr 1e-06
4897 Epoch 1508/10000
4898   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4899 epoch_end_callback epoch 1507 lr 1e-06
4900 Epoch 1509/10000
4901   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4902 epoch_end_callback epoch 1508 lr 1e-06
4903 Epoch 1510/10000
4904   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4905
4906 Epoch 01510: saving model to model/model_best.h5
4907 epoch_end_callback epoch 1509 lr 1e-06
4908 Epoch 1511/10000
4909   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4909 .0027 - val_mean_squared_error: 0.0027
4910 epoch_end_callback epoch 1510 lr 1e-06
4911 Epoch 1512/10000
4912 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4913 epoch_end_callback epoch 1511 lr 1e-06
4914 Epoch 1513/10000
4915 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4916 epoch_end_callback epoch 1512 lr 1e-06
4917 Epoch 1514/10000
4918 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4919 epoch_end_callback epoch 1513 lr 1e-06
4920 Epoch 1515/10000
4921 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4922 epoch_end_callback epoch 1514 lr 1e-06
4923 Epoch 1516/10000
4924 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4925 epoch_end_callback epoch 1515 lr 1e-06
4926 Epoch 1517/10000
4927 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4928 epoch_end_callback epoch 1516 lr 1e-06
4929 Epoch 1518/10000
4930 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4931 epoch_end_callback epoch 1517 lr 1e-06
4932 Epoch 1519/10000
4933 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
4934 epoch_end_callback epoch 1518 lr 1e-06
4935 Epoch 1520/10000
4936 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
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4937
4938 Epoch 01520: saving model to model/model_best.h5
4939 epoch_end_callback epoch 1519 lr 1e-06
4940 Epoch 1521/10000
4941   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4942 epoch_end_callback epoch 1520 lr 1e-06
4943 Epoch 1522/10000
4944   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4945 epoch_end_callback epoch 1521 lr 1e-06
4946 Epoch 1523/10000
4947   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4948 epoch_end_callback epoch 1522 lr 1e-06
4949 Epoch 1524/10000
4950   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4951 epoch_end_callback epoch 1523 lr 1e-06
4952 Epoch 1525/10000
4953   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4954 epoch_end_callback epoch 1524 lr 1e-06
4955 Epoch 1526/10000
4956   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4957 epoch_end_callback epoch 1525 lr 1e-06
4958 Epoch 1527/10000
4959   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4960 epoch_end_callback epoch 1526 lr 1e-06
4961 Epoch 1528/10000
4962   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4963 epoch_end_callback epoch 1527 lr 1e-06
4964 Epoch 1529/10000
4965   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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4965 .0027 - val_mean_squared_error: 0.0027
4966 epoch_end_callback epoch 1528 lr 1e-06
4967 Epoch 1530/10000
4968 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4969
4970 Epoch 01530: saving model to model/model_best.h5
4971 epoch_end_callback epoch 1529 lr 1e-06
4972 Epoch 1531/10000
4973 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4974 epoch_end_callback epoch 1530 lr 1e-06
4975 Epoch 1532/10000
4976 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4977 epoch_end_callback epoch 1531 lr 1e-06
4978 Epoch 1533/10000
4979 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4980 epoch_end_callback epoch 1532 lr 1e-06
4981 Epoch 1534/10000
4982 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4983 epoch_end_callback epoch 1533 lr 1e-06
4984 Epoch 1535/10000
4985 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4986 epoch_end_callback epoch 1534 lr 1e-06
4987 Epoch 1536/10000
4988 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4989 epoch_end_callback epoch 1535 lr 1e-06
4990 Epoch 1537/10000
4991 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
4992 epoch_end_callback epoch 1536 lr 1e-06
4993 Epoch 1538/10000
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4994 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4995 epoch_end_callback epoch 1537 lr 1e-06
4996 Epoch 1539/10000
4997 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
4998 epoch_end_callback epoch 1538 lr 1e-06
4999 Epoch 1540/10000
5000 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5001
5002 Epoch 1540: saving model to model/model_best.h5
5003 epoch_end_callback epoch 1539 lr 1e-06
5004 Epoch 1541/10000
5005 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5006 epoch_end_callback epoch 1540 lr 1e-06
5007 Epoch 1542/10000
5008 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5009 epoch_end_callback epoch 1541 lr 1e-06
5010 Epoch 1543/10000
5011 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5012 epoch_end_callback epoch 1542 lr 1e-06
5013 Epoch 1544/10000
5014 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5015 epoch_end_callback epoch 1543 lr 1e-06
5016 Epoch 1545/10000
5017 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5018 epoch_end_callback epoch 1544 lr 1e-06
5019 Epoch 1546/10000
5020 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5021 epoch_end_callback epoch 1545 lr 1e-06
```



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5022 Epoch 1547/10000
5023   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5024 epoch_end_callback epoch 1546 lr 1e-06
5025 Epoch 1548/10000
5026   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5027 epoch_end_callback epoch 1547 lr 1e-06
5028 Epoch 1549/10000
5029   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5030 epoch_end_callback epoch 1548 lr 1e-06
5031 Epoch 1550/10000
5032   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5033
5034 Epoch 1550: saving model to model/model_best.h5
5035 epoch_end_callback epoch 1549 lr 1e-06
5036 Epoch 1551/10000
5037   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5038 epoch_end_callback epoch 1550 lr 1e-06
5039 Epoch 1552/10000
5040   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5041 epoch_end_callback epoch 1551 lr 1e-06
5042 Epoch 1553/10000
5043   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5044 epoch_end_callback epoch 1552 lr 1e-06
5045 Epoch 1554/10000
5046   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5047 epoch_end_callback epoch 1553 lr 1e-06
5048 Epoch 1555/10000
5049   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
```

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5050 epoch_end_callback epoch 1554 lr 1e-06
5051 Epoch 1556/10000
5052 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5053 epoch_end_callback epoch 1555 lr 1e-06
5054 Epoch 1557/10000
5055 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5056 epoch_end_callback epoch 1556 lr 1e-06
5057 Epoch 1558/10000
5058 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5059 epoch_end_callback epoch 1557 lr 1e-06
5060 Epoch 1559/10000
5061 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5062 epoch_end_callback epoch 1558 lr 1e-06
5063 Epoch 1560/10000
5064 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5065
5066 Epoch 01560: saving model to model/model_best.h5
5067 epoch_end_callback epoch 1559 lr 1e-06
5068 Epoch 1561/10000
5069 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5070 epoch_end_callback epoch 1560 lr 1e-06
5071 Epoch 1562/10000
5072 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5073 epoch_end_callback epoch 1561 lr 1e-06
5074 Epoch 1563/10000
5075 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5076 epoch_end_callback epoch 1562 lr 1e-06
5077 Epoch 1564/10000
5078 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5078 .0027 - val_mean_squared_error: 0.0027
5079 epoch_end_callback epoch 1563 lr 1e-06
5080 Epoch 1565/10000
5081 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5082 epoch_end_callback epoch 1564 lr 1e-06
5083 Epoch 1566/10000
5084 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5085 epoch_end_callback epoch 1565 lr 1e-06
5086 Epoch 1567/10000
5087 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5088 epoch_end_callback epoch 1566 lr 1e-06
5089 Epoch 1568/10000
5090 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5091 epoch_end_callback epoch 1567 lr 1e-06
5092 Epoch 1569/10000
5093 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5094 epoch_end_callback epoch 1568 lr 1e-06
5095 Epoch 1570/10000
5096 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5097
5098 Epoch 01570: saving model to model/model_best.h5
5099 epoch_end_callback epoch 1569 lr 1e-06
5100 Epoch 1571/10000
5101 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5102 epoch_end_callback epoch 1570 lr 1e-06
5103 Epoch 1572/10000
5104 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5105 epoch_end_callback epoch 1571 lr 1e-06
5106 Epoch 1573/10000
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5107 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5108 epoch_end_callback epoch 1572 lr 1e-06
5109 Epoch 1574/10000
5110 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5111 epoch_end_callback epoch 1573 lr 1e-06
5112 Epoch 1575/10000
5113 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5114 epoch_end_callback epoch 1574 lr 1e-06
5115 Epoch 1576/10000
5116 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5117 epoch_end_callback epoch 1575 lr 1e-06
5118 Epoch 1577/10000
5119 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5120 epoch_end_callback epoch 1576 lr 1e-06
5121 Epoch 1578/10000
5122 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5123 epoch_end_callback epoch 1577 lr 1e-06
5124 Epoch 1579/10000
5125 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5126 epoch_end_callback epoch 1578 lr 1e-06
5127 Epoch 1580/10000
5128 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5129
5130 Epoch 01580: saving model to model/model_best.h5
5131 epoch_end_callback epoch 1579 lr 1e-06
5132 Epoch 1581/10000
5133 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5134 epoch_end_callback epoch 1580 lr 1e-06
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5135 Epoch 1582/10000
5136   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5137   .0027 - val_mean_squared_error: 0.0027
5137 epoch_end_callback epoch 1581 lr 1e-06
5138 Epoch 1583/10000
5139   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5140   .0027 - val_mean_squared_error: 0.0027
5140 epoch_end_callback epoch 1582 lr 1e-06
5141 Epoch 1584/10000
5142   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5143   .0027 - val_mean_squared_error: 0.0027
5143 epoch_end_callback epoch 1583 lr 1e-06
5144 Epoch 1585/10000
5145   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5146   .0027 - val_mean_squared_error: 0.0027
5146 epoch_end_callback epoch 1584 lr 1e-06
5147 Epoch 1586/10000
5148   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5149   .0027 - val_mean_squared_error: 0.0027
5149 epoch_end_callback epoch 1585 lr 1e-06
5150 Epoch 1587/10000
5151   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5152   .0027 - val_mean_squared_error: 0.0027
5152 epoch_end_callback epoch 1586 lr 1e-06
5153 Epoch 1588/10000
5154   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5155   .0027 - val_mean_squared_error: 0.0027
5155 epoch_end_callback epoch 1587 lr 1e-06
5156 Epoch 1589/10000
5157   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5158   .0027 - val_mean_squared_error: 0.0027
5158 epoch_end_callback epoch 1588 lr 1e-06
5159 Epoch 1590/10000
5160   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
5161   .0027 - val_mean_squared_error: 0.0027
5161
5162 Epoch 01590: saving model to model/model_best.h5
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5163 epoch_end_callback epoch 1589 lr 1e-06
5164 Epoch 1591/10000
5165   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5166 epoch_end_callback epoch 1590 lr 1e-06
5167 Epoch 1592/10000
5168   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5169 epoch_end_callback epoch 1591 lr 1e-06
5170 Epoch 1593/10000
5171   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5172 epoch_end_callback epoch 1592 lr 1e-06
5173 Epoch 1594/10000
5174   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5175 epoch_end_callback epoch 1593 lr 1e-06
5176 Epoch 1595/10000
5177   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5178 epoch_end_callback epoch 1594 lr 1e-06
5179 Epoch 1596/10000
5180   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5181 epoch_end_callback epoch 1595 lr 1e-06
5182 Epoch 1597/10000
5183   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5184 epoch_end_callback epoch 1596 lr 1e-06
5185 Epoch 1598/10000
5186   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5187 epoch_end_callback epoch 1597 lr 1e-06
5188 Epoch 1599/10000
5189   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5190 epoch_end_callback epoch 1598 lr 1e-06
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5191 Epoch 1600/10000
5192   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5193
5194 Epoch 01600: saving model to model/model_best.h5
5195 epoch_end_callback epoch 1599 lr 1e-06
5196 Epoch 1601/10000
5197   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5198 epoch_end_callback epoch 1600 lr 1e-06
5199 Epoch 1602/10000
5200   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5201 epoch_end_callback epoch 1601 lr 1e-06
5202 Epoch 1603/10000
5203   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5204 epoch_end_callback epoch 1602 lr 1e-06
5205 Epoch 1604/10000
5206   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5207 epoch_end_callback epoch 1603 lr 1e-06
5208 Epoch 1605/10000
5209   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5210 epoch_end_callback epoch 1604 lr 1e-06
5211 Epoch 1606/10000
5212   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5213 epoch_end_callback epoch 1605 lr 1e-06
5214 Epoch 1607/10000
5215   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5216 epoch_end_callback epoch 1606 lr 1e-06
5217 Epoch 1608/10000
5218   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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5219 epoch_end_callback epoch 1607 lr 1e-06
5220 Epoch 1609/10000
5221   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5222 epoch_end_callback epoch 1608 lr 1e-06
5223 Epoch 1610/10000
5224   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5225
5226 Epoch 01610: saving model to model/model_best.h5
5227 epoch_end_callback epoch 1609 lr 1e-06
5228 Epoch 1611/10000
5229   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5230 epoch_end_callback epoch 1610 lr 1e-06
5231 Epoch 1612/10000
5232   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5233 epoch_end_callback epoch 1611 lr 1e-06
5234 Epoch 1613/10000
5235   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5236 epoch_end_callback epoch 1612 lr 1e-06
5237 Epoch 1614/10000
5238   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5239 epoch_end_callback epoch 1613 lr 1e-06
5240 Epoch 1615/10000
5241   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5242 epoch_end_callback epoch 1614 lr 1e-06
5243 Epoch 1616/10000
5244   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5245 epoch_end_callback epoch 1615 lr 1e-06
5246 Epoch 1617/10000
5247   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5247 .0027 - val_mean_squared_error: 0.0027
5248 epoch_end_callback epoch 1616 lr 1e-06
5249 Epoch 1618/10000
5250 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5251 epoch_end_callback epoch 1617 lr 1e-06
5252 Epoch 1619/10000
5253 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5254 epoch_end_callback epoch 1618 lr 1e-06
5255 Epoch 1620/10000
5256 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5257
5258 Epoch 01620: saving model to model/model_best.h5
5259 epoch_end_callback epoch 1619 lr 1e-06
5260 Epoch 1621/10000
5261 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5262 epoch_end_callback epoch 1620 lr 1e-06
5263 Epoch 1622/10000
5264 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5265 epoch_end_callback epoch 1621 lr 1e-06
5266 Epoch 1623/10000
5267 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5268 epoch_end_callback epoch 1622 lr 1e-06
5269 Epoch 1624/10000
5270 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5271 epoch_end_callback epoch 1623 lr 1e-06
5272 Epoch 1625/10000
5273 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5274 epoch_end_callback epoch 1624 lr 1e-06
5275 Epoch 1626/10000
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5276 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5277 epoch_end_callback epoch 1625 lr 1e-06
5278 Epoch 1627/10000
5279 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5280 epoch_end_callback epoch 1626 lr 1e-06
5281 Epoch 1628/10000
5282 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5283 epoch_end_callback epoch 1627 lr 1e-06
5284 Epoch 1629/10000
5285 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5286 epoch_end_callback epoch 1628 lr 1e-06
5287 Epoch 1630/10000
5288 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5289
5290 Epoch 01630: saving model to model/model_best.h5
5291 epoch_end_callback epoch 1629 lr 1e-06
5292 Epoch 1631/10000
5293 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5294 epoch_end_callback epoch 1630 lr 1e-06
5295 Epoch 1632/10000
5296 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5297 epoch_end_callback epoch 1631 lr 1e-06
5298 Epoch 1633/10000
5299 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5300 epoch_end_callback epoch 1632 lr 1e-06
5301 Epoch 1634/10000
5302 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5303 epoch_end_callback epoch 1633 lr 1e-06
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5304 Epoch 1635/10000
5305   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5306 epoch_end_callback epoch 1634 lr 1e-06
5307 Epoch 1636/10000
5308   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5309 epoch_end_callback epoch 1635 lr 1e-06
5310 Epoch 1637/10000
5311   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5312 epoch_end_callback epoch 1636 lr 1e-06
5313 Epoch 1638/10000
5314   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5315 epoch_end_callback epoch 1637 lr 1e-06
5316 Epoch 1639/10000
5317   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5318 epoch_end_callback epoch 1638 lr 1e-06
5319 Epoch 1640/10000
5320   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5321
5322 Epoch 01640: saving model to model/model_best.h5
5323 epoch_end_callback epoch 1639 lr 1e-06
5324 Epoch 1641/10000
5325   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5326 epoch_end_callback epoch 1640 lr 1e-06
5327 Epoch 1642/10000
5328   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5329 epoch_end_callback epoch 1641 lr 1e-06
5330 Epoch 1643/10000
5331   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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5332 epoch_end_callback epoch 1642 lr 1e-06
5333 Epoch 1644/10000
5334   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5335 epoch_end_callback epoch 1643 lr 1e-06
5336 Epoch 1645/10000
5337   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5338 epoch_end_callback epoch 1644 lr 1e-06
5339 Epoch 1646/10000
5340   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5341 epoch_end_callback epoch 1645 lr 1e-06
5342 Epoch 1647/10000
5343   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5344 epoch_end_callback epoch 1646 lr 1e-06
5345 Epoch 1648/10000
5346   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5347 epoch_end_callback epoch 1647 lr 1e-06
5348 Epoch 1649/10000
5349   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5350 epoch_end_callback epoch 1648 lr 1e-06
5351 Epoch 1650/10000
5352   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5353
5354 Epoch 01650: saving model to model/model_best.h5
5355 epoch_end_callback epoch 1649 lr 1e-06
5356 Epoch 1651/10000
5357   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5358 epoch_end_callback epoch 1650 lr 1e-06
5359 Epoch 1652/10000
5360   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
```

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5360 .0027 - val_mean_squared_error: 0.0027
5361 epoch_end_callback epoch 1651 lr 1e-06
5362 Epoch 1653/10000
5363 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5364 epoch_end_callback epoch 1652 lr 1e-06
5365 Epoch 1654/10000
5366 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5367 epoch_end_callback epoch 1653 lr 1e-06
5368 Epoch 1655/10000
5369 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5370 epoch_end_callback epoch 1654 lr 1e-06
5371 Epoch 1656/10000
5372 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5373 epoch_end_callback epoch 1655 lr 1e-06
5374 Epoch 1657/10000
5375 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5376 epoch_end_callback epoch 1656 lr 1e-06
5377 Epoch 1658/10000
5378 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5379 epoch_end_callback epoch 1657 lr 1e-06
5380 Epoch 1659/10000
5381 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5382 epoch_end_callback epoch 1658 lr 1e-06
5383 Epoch 1660/10000
5384 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5385
5386 Epoch 01660: saving model to model/model_best.h5
5387 epoch_end_callback epoch 1659 lr 1e-06
5388 Epoch 1661/10000
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5389 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5390 epoch_end_callback epoch 1660 lr 1e-06
5391 Epoch 1662/10000
5392 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5393 epoch_end_callback epoch 1661 lr 1e-06
5394 Epoch 1663/10000
5395 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5396 epoch_end_callback epoch 1662 lr 1e-06
5397 Epoch 1664/10000
5398 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5399 epoch_end_callback epoch 1663 lr 1e-06
5400 Epoch 1665/10000
5401 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5402 epoch_end_callback epoch 1664 lr 1e-06
5403 Epoch 1666/10000
5404 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5405 epoch_end_callback epoch 1665 lr 1e-06
5406 Epoch 1667/10000
5407 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5408 epoch_end_callback epoch 1666 lr 1e-06
5409 Epoch 1668/10000
5410 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5411 epoch_end_callback epoch 1667 lr 1e-06
5412 Epoch 1669/10000
5413 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5414 epoch_end_callback epoch 1668 lr 1e-06
5415 Epoch 1670/10000
5416 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5416 .0027 - val_mean_squared_error: 0.0027
5417
5418 Epoch 01670: saving model to model/model_best.h5
5419 epoch_end_callback epoch 1669 lr 1e-06
5420 Epoch 1671/10000
5421 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5422 epoch_end_callback epoch 1670 lr 1e-06
5423 Epoch 1672/10000
5424 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5425 epoch_end_callback epoch 1671 lr 1e-06
5426 Epoch 1673/10000
5427 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5428 epoch_end_callback epoch 1672 lr 1e-06
5429 Epoch 1674/10000
5430 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5431 epoch_end_callback epoch 1673 lr 1e-06
5432 Epoch 1675/10000
5433 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5434 epoch_end_callback epoch 1674 lr 1e-06
5435 Epoch 1676/10000
5436 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5437 epoch_end_callback epoch 1675 lr 1e-06
5438 Epoch 1677/10000
5439 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5440 epoch_end_callback epoch 1676 lr 1e-06
5441 Epoch 1678/10000
5442 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5443 epoch_end_callback epoch 1677 lr 1e-06
5444 Epoch 1679/10000
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5445 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5446 epoch_end_callback epoch 1678 lr 1e-06
5447 Epoch 1680/10000
5448 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5449
5450 Epoch 01680: saving model to model/model_best.h5
5451 epoch_end_callback epoch 1679 lr 1e-06
5452 Epoch 1681/10000
5453 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5454 epoch_end_callback epoch 1680 lr 1e-06
5455 Epoch 1682/10000
5456 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5457 epoch_end_callback epoch 1681 lr 1e-06
5458 Epoch 1683/10000
5459 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5460 epoch_end_callback epoch 1682 lr 1e-06
5461 Epoch 1684/10000
5462 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5463 epoch_end_callback epoch 1683 lr 1e-06
5464 Epoch 1685/10000
5465 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5466 epoch_end_callback epoch 1684 lr 1e-06
5467 Epoch 1686/10000
5468 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5469 epoch_end_callback epoch 1685 lr 1e-06
5470 Epoch 1687/10000
5471 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5472 epoch_end_callback epoch 1686 lr 1e-06
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5473 Epoch 1688/10000
5474   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5475 epoch_end_callback epoch 1687 lr 1e-06
5476 Epoch 1689/10000
5477   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5478 epoch_end_callback epoch 1688 lr 1e-06
5479 Epoch 1690/10000
5480   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5481
5482 Epoch 1690: saving model to model/model_best.h5
5483 epoch_end_callback epoch 1689 lr 1e-06
5484 Epoch 1691/10000
5485   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5486 epoch_end_callback epoch 1690 lr 1e-06
5487 Epoch 1692/10000
5488   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5489 epoch_end_callback epoch 1691 lr 1e-06
5490 Epoch 1693/10000
5491   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5492 epoch_end_callback epoch 1692 lr 1e-06
5493 Epoch 1694/10000
5494   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5495 epoch_end_callback epoch 1693 lr 1e-06
5496 Epoch 1695/10000
5497   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5498 epoch_end_callback epoch 1694 lr 1e-06
5499 Epoch 1696/10000
5500   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
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5501 epoch_end_callback epoch 1695 lr 1e-06
5502 Epoch 1697/10000
5503   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5504 epoch_end_callback epoch 1696 lr 1e-06
5505 Epoch 1698/10000
5506   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5507 epoch_end_callback epoch 1697 lr 1e-06
5508 Epoch 1699/10000
5509   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5510 epoch_end_callback epoch 1698 lr 1e-06
5511 Epoch 1700/10000
5512   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5513
5514 Epoch 01700: saving model to model/model_best.h5
5515 epoch_end_callback epoch 1699 lr 1e-06
5516 Epoch 1701/10000
5517   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5518 epoch_end_callback epoch 1700 lr 1e-06
5519 Epoch 1702/10000
5520   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5521 epoch_end_callback epoch 1701 lr 1e-06
5522 Epoch 1703/10000
5523   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5524 epoch_end_callback epoch 1702 lr 1e-06
5525 Epoch 1704/10000
5526   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5527 epoch_end_callback epoch 1703 lr 1e-06
5528 Epoch 1705/10000
5529   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5529 .0027 - val_mean_squared_error: 0.0027
5530 epoch_end_callback epoch 1704 lr 1e-06
5531 Epoch 1706/10000
5532 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5533 epoch_end_callback epoch 1705 lr 1e-06
5534 Epoch 1707/10000
5535 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5536 epoch_end_callback epoch 1706 lr 1e-06
5537 Epoch 1708/10000
5538 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5539 epoch_end_callback epoch 1707 lr 1e-06
5540 Epoch 1709/10000
5541 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5542 epoch_end_callback epoch 1708 lr 1e-06
5543 Epoch 1710/10000
5544 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5545
5546 Epoch 01710: saving model to model/model_best.h5
5547 epoch_end_callback epoch 1709 lr 1e-06
5548 Epoch 1711/10000
5549 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5550 epoch_end_callback epoch 1710 lr 1e-06
5551 Epoch 1712/10000
5552 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5553 epoch_end_callback epoch 1711 lr 1e-06
5554 Epoch 1713/10000
5555 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5556 epoch_end_callback epoch 1712 lr 1e-06
5557 Epoch 1714/10000
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5558 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5559 epoch_end_callback epoch 1713 lr 1e-06
5560 Epoch 1715/10000
5561 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5562 epoch_end_callback epoch 1714 lr 1e-06
5563 Epoch 1716/10000
5564 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5565 epoch_end_callback epoch 1715 lr 1e-06
5566 Epoch 1717/10000
5567 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5568 epoch_end_callback epoch 1716 lr 1e-06
5569 Epoch 1718/10000
5570 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5571 epoch_end_callback epoch 1717 lr 1e-06
5572 Epoch 1719/10000
5573 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5574 epoch_end_callback epoch 1718 lr 1e-06
5575 Epoch 1720/10000
5576 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5577
5578 Epoch 01720: saving model to model/model_best.h5
5579 epoch_end_callback epoch 1719 lr 1e-06
5580 Epoch 1721/10000
5581 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5582 epoch_end_callback epoch 1720 lr 1e-06
5583 Epoch 1722/10000
5584 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5585 epoch_end_callback epoch 1721 lr 1e-06
```

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5586 Epoch 1723/10000
5587   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5588 epoch_end_callback epoch 1722 lr 1e-06
5589 Epoch 1724/10000
5590   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5591 epoch_end_callback epoch 1723 lr 1e-06
5592 Epoch 1725/10000
5593   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5594 epoch_end_callback epoch 1724 lr 1e-06
5595 Epoch 1726/10000
5596   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5597 epoch_end_callback epoch 1725 lr 1e-06
5598 Epoch 1727/10000
5599   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5600 epoch_end_callback epoch 1726 lr 1e-06
5601 Epoch 1728/10000
5602   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5603 epoch_end_callback epoch 1727 lr 1e-06
5604 Epoch 1729/10000
5605   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5606 epoch_end_callback epoch 1728 lr 1e-06
5607 Epoch 1730/10000
5608   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5609
5610 Epoch 01730: saving model to model/model_best.h5
5611 epoch_end_callback epoch 1729 lr 1e-06
5612 Epoch 1731/10000
5613   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
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5614 epoch_end_callback epoch 1730 lr 1e-06
5615 Epoch 1732/10000
5616 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5617 epoch_end_callback epoch 1731 lr 1e-06
5618 Epoch 1733/10000
5619 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5620 epoch_end_callback epoch 1732 lr 1e-06
5621 Epoch 1734/10000
5622 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5623 epoch_end_callback epoch 1733 lr 1e-06
5624 Epoch 1735/10000
5625 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5626 epoch_end_callback epoch 1734 lr 1e-06
5627 Epoch 1736/10000
5628 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5629 epoch_end_callback epoch 1735 lr 1e-06
5630 Epoch 1737/10000
5631 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5632 epoch_end_callback epoch 1736 lr 1e-06
5633 Epoch 1738/10000
5634 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5635 epoch_end_callback epoch 1737 lr 1e-06
5636 Epoch 1739/10000
5637 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5638 epoch_end_callback epoch 1738 lr 1e-06
5639 Epoch 1740/10000
5640 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5641
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5642 Epoch 01740: saving model to model/model_best.h5
5643 epoch_end_callback epoch 1739 lr 1e-06
5644 Epoch 1741/10000
5645   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5646 epoch_end_callback epoch 1740 lr 1e-06
5647 Epoch 1742/10000
5648   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5649 epoch_end_callback epoch 1741 lr 1e-06
5650 Epoch 1743/10000
5651   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5652 epoch_end_callback epoch 1742 lr 1e-06
5653 Epoch 1744/10000
5654   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5655 epoch_end_callback epoch 1743 lr 1e-06
5656 Epoch 1745/10000
5657   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5658 epoch_end_callback epoch 1744 lr 1e-06
5659 Epoch 1746/10000
5660   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5661 epoch_end_callback epoch 1745 lr 1e-06
5662 Epoch 1747/10000
5663   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5664 epoch_end_callback epoch 1746 lr 1e-06
5665 Epoch 1748/10000
5666   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5667 epoch_end_callback epoch 1747 lr 1e-06
5668 Epoch 1749/10000
5669   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
```

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5670 epoch_end_callback epoch 1748 lr 1e-06
5671 Epoch 1750/10000
5672 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5673
5674 Epoch 01750: saving model to model/model_best.h5
5675 epoch_end_callback epoch 1749 lr 1e-06
5676 Epoch 1751/10000
5677 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5678 epoch_end_callback epoch 1750 lr 1e-06
5679 Epoch 1752/10000
5680 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5681 epoch_end_callback epoch 1751 lr 1e-06
5682 Epoch 1753/10000
5683 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5684 epoch_end_callback epoch 1752 lr 1e-06
5685 Epoch 1754/10000
5686 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5687 epoch_end_callback epoch 1753 lr 1e-06
5688 Epoch 1755/10000
5689 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5690 epoch_end_callback epoch 1754 lr 1e-06
5691 Epoch 1756/10000
5692 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5693 epoch_end_callback epoch 1755 lr 1e-06
5694 Epoch 1757/10000
5695 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5696 epoch_end_callback epoch 1756 lr 1e-06
5697 Epoch 1758/10000
5698 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5698 .0027 - val_mean_squared_error: 0.0027
5699 epoch_end_callback epoch 1757 lr 1e-06
5700 Epoch 1759/10000
5701 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5702 epoch_end_callback epoch 1758 lr 1e-06
5703 Epoch 1760/10000
5704 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5705
5706 Epoch 01760: saving model to model/model_best.h5
5707 epoch_end_callback epoch 1759 lr 1e-06
5708 Epoch 1761/10000
5709 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5710 epoch_end_callback epoch 1760 lr 1e-06
5711 Epoch 1762/10000
5712 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5713 epoch_end_callback epoch 1761 lr 1e-06
5714 Epoch 1763/10000
5715 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5716 epoch_end_callback epoch 1762 lr 1e-06
5717 Epoch 1764/10000
5718 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5719 epoch_end_callback epoch 1763 lr 1e-06
5720 Epoch 1765/10000
5721 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5722 epoch_end_callback epoch 1764 lr 1e-06
5723 Epoch 1766/10000
5724 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5725 epoch_end_callback epoch 1765 lr 1e-06
5726 Epoch 1767/10000
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5727 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5728 epoch_end_callback epoch 1766 lr 1e-06
5729 Epoch 1768/10000
5730 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5731 epoch_end_callback epoch 1767 lr 1e-06
5732 Epoch 1769/10000
5733 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5734 epoch_end_callback epoch 1768 lr 1e-06
5735 Epoch 1770/10000
5736 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5737
5738 Epoch 01770: saving model to model/model_best.h5
5739 epoch_end_callback epoch 1769 lr 1e-06
5740 Epoch 1771/10000
5741 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5742 epoch_end_callback epoch 1770 lr 1e-06
5743 Epoch 1772/10000
5744 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5745 epoch_end_callback epoch 1771 lr 1e-06
5746 Epoch 1773/10000
5747 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5748 epoch_end_callback epoch 1772 lr 1e-06
5749 Epoch 1774/10000
5750 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5751 epoch_end_callback epoch 1773 lr 1e-06
5752 Epoch 1775/10000
5753 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5754 epoch_end_callback epoch 1774 lr 1e-06
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5755 Epoch 1776/10000
5756   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5757 epoch_end_callback epoch 1775 lr 1e-06
5758 Epoch 1777/10000
5759   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5760 epoch_end_callback epoch 1776 lr 1e-06
5761 Epoch 1778/10000
5762   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5763 epoch_end_callback epoch 1777 lr 1e-06
5764 Epoch 1779/10000
5765   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5766 epoch_end_callback epoch 1778 lr 1e-06
5767 Epoch 1780/10000
5768   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5769
5770 Epoch 1780: saving model to model/model_best.h5
5771 epoch_end_callback epoch 1779 lr 1e-06
5772 Epoch 1781/10000
5773   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5774 epoch_end_callback epoch 1780 lr 1e-06
5775 Epoch 1782/10000
5776   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5777 epoch_end_callback epoch 1781 lr 1e-06
5778 Epoch 1783/10000
5779   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5780 epoch_end_callback epoch 1782 lr 1e-06
5781 Epoch 1784/10000
5782   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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5783 epoch_end_callback epoch 1783 lr 1e-06
5784 Epoch 1785/10000
5785   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5786 epoch_end_callback epoch 1784 lr 1e-06
5787 Epoch 1786/10000
5788   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5789 epoch_end_callback epoch 1785 lr 1e-06
5790 Epoch 1787/10000
5791   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5792 epoch_end_callback epoch 1786 lr 1e-06
5793 Epoch 1788/10000
5794   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5795 epoch_end_callback epoch 1787 lr 1e-06
5796 Epoch 1789/10000
5797   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5798 epoch_end_callback epoch 1788 lr 1e-06
5799 Epoch 1790/10000
5800   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5801
5802 Epoch 01790: saving model to model/model_best.h5
5803 epoch_end_callback epoch 1789 lr 1e-06
5804 Epoch 1791/10000
5805   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5806 epoch_end_callback epoch 1790 lr 1e-06
5807 Epoch 1792/10000
5808   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5809 epoch_end_callback epoch 1791 lr 1e-06
5810 Epoch 1793/10000
5811   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
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5811 .0027 - val_mean_squared_error: 0.0027
5812 epoch_end_callback epoch 1792 lr 1e-06
5813 Epoch 1794/10000
5814 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5815 epoch_end_callback epoch 1793 lr 1e-06
5816 Epoch 1795/10000
5817 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5818 epoch_end_callback epoch 1794 lr 1e-06
5819 Epoch 1796/10000
5820 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5821 epoch_end_callback epoch 1795 lr 1e-06
5822 Epoch 1797/10000
5823 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5824 epoch_end_callback epoch 1796 lr 1e-06
5825 Epoch 1798/10000
5826 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5827 epoch_end_callback epoch 1797 lr 1e-06
5828 Epoch 1799/10000
5829 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5830 epoch_end_callback epoch 1798 lr 1e-06
5831 Epoch 1800/10000
5832 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5833
5834 Epoch 01800: saving model to model/model_best.h5
5835 epoch_end_callback epoch 1799 lr 1e-06
5836 Epoch 1801/10000
5837 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5838 epoch_end_callback epoch 1800 lr 1e-06
5839 Epoch 1802/10000
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5840 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5841 epoch_end_callback epoch 1801 lr 1e-06
5842 Epoch 1803/10000
5843 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5844 epoch_end_callback epoch 1802 lr 1e-06
5845 Epoch 1804/10000
5846 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5847 epoch_end_callback epoch 1803 lr 1e-06
5848 Epoch 1805/10000
5849 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5850 epoch_end_callback epoch 1804 lr 1e-06
5851 Epoch 1806/10000
5852 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5853 epoch_end_callback epoch 1805 lr 1e-06
5854 Epoch 1807/10000
5855 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5856 epoch_end_callback epoch 1806 lr 1e-06
5857 Epoch 1808/10000
5858 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5859 epoch_end_callback epoch 1807 lr 1e-06
5860 Epoch 1809/10000
5861 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5862 epoch_end_callback epoch 1808 lr 1e-06
5863 Epoch 1810/10000
5864 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5865
5866 Epoch 01810: saving model to model/model_best.h5
5867 epoch_end_callback epoch 1809 lr 1e-06
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5868 Epoch 1811/10000
5869   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5870 epoch_end_callback epoch 1810 lr 1e-06
5871 Epoch 1812/10000
5872   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5873 epoch_end_callback epoch 1811 lr 1e-06
5874 Epoch 1813/10000
5875   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5876 epoch_end_callback epoch 1812 lr 1e-06
5877 Epoch 1814/10000
5878   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5879 epoch_end_callback epoch 1813 lr 1e-06
5880 Epoch 1815/10000
5881   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5882 epoch_end_callback epoch 1814 lr 1e-06
5883 Epoch 1816/10000
5884   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5885 epoch_end_callback epoch 1815 lr 1e-06
5886 Epoch 1817/10000
5887   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5888 epoch_end_callback epoch 1816 lr 1e-06
5889 Epoch 1818/10000
5890   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5891 epoch_end_callback epoch 1817 lr 1e-06
5892 Epoch 1819/10000
5893   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
    .0027 - val_mean_squared_error: 0.0027
5894 epoch_end_callback epoch 1818 lr 1e-06
5895 Epoch 1820/10000
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5896 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5897
5898 Epoch 01820: saving model to model/model_best.h5
5899 epoch_end_callback epoch 1819 lr 1e-06
5900 Epoch 1821/10000
5901 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5902 epoch_end_callback epoch 1820 lr 1e-06
5903 Epoch 1822/10000
5904 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5905 epoch_end_callback epoch 1821 lr 1e-06
5906 Epoch 1823/10000
5907 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5908 epoch_end_callback epoch 1822 lr 1e-06
5909 Epoch 1824/10000
5910 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5911 epoch_end_callback epoch 1823 lr 1e-06
5912 Epoch 1825/10000
5913 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5914 epoch_end_callback epoch 1824 lr 1e-06
5915 Epoch 1826/10000
5916 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5917 epoch_end_callback epoch 1825 lr 1e-06
5918 Epoch 1827/10000
5919 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5920 epoch_end_callback epoch 1826 lr 1e-06
5921 Epoch 1828/10000
5922 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5923 epoch_end_callback epoch 1827 lr 1e-06
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5924 Epoch 1829/10000
5925   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5926 epoch_end_callback epoch 1828 lr 1e-06
5927 Epoch 1830/10000
5928   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5929
5930 Epoch 01830: saving model to model/model_best.h5
5931 epoch_end_callback epoch 1829 lr 1e-06
5932 Epoch 1831/10000
5933   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5934 epoch_end_callback epoch 1830 lr 1e-06
5935 Epoch 1832/10000
5936   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5937 epoch_end_callback epoch 1831 lr 1e-06
5938 Epoch 1833/10000
5939   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5940 epoch_end_callback epoch 1832 lr 1e-06
5941 Epoch 1834/10000
5942   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5943 epoch_end_callback epoch 1833 lr 1e-06
5944 Epoch 1835/10000
5945   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5946 epoch_end_callback epoch 1834 lr 1e-06
5947 Epoch 1836/10000
5948   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
5949 epoch_end_callback epoch 1835 lr 1e-06
5950 Epoch 1837/10000
5951   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
      .0027 - val_mean_squared_error: 0.0027
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5952 epoch_end_callback epoch 1836 lr 1e-06
5953 Epoch 1838/10000
5954 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5955 epoch_end_callback epoch 1837 lr 1e-06
5956 Epoch 1839/10000
5957 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5958 epoch_end_callback epoch 1838 lr 1e-06
5959 Epoch 1840/10000
5960 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5961
5962 Epoch 01840: saving model to model/model_best.h5
5963 epoch_end_callback epoch 1839 lr 1e-06
5964 Epoch 1841/10000
5965 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5966 epoch_end_callback epoch 1840 lr 1e-06
5967 Epoch 1842/10000
5968 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5969 epoch_end_callback epoch 1841 lr 1e-06
5970 Epoch 1843/10000
5971 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5972 epoch_end_callback epoch 1842 lr 1e-06
5973 Epoch 1844/10000
5974 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5975 epoch_end_callback epoch 1843 lr 1e-06
5976 Epoch 1845/10000
5977 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5978 epoch_end_callback epoch 1844 lr 1e-06
5979 Epoch 1846/10000
5980 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
```

```
5980 .0027 - val_mean_squared_error: 0.0027
5981 epoch_end_callback epoch 1845 lr 1e-06
5982 Epoch 1847/10000
5983 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5984 epoch_end_callback epoch 1846 lr 1e-06
5985 Epoch 1848/10000
5986 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5987 epoch_end_callback epoch 1847 lr 1e-06
5988 Epoch 1849/10000
5989 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5990 epoch_end_callback epoch 1848 lr 1e-06
5991 Epoch 1850/10000
5992 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5993
5994 Epoch 01850: saving model to model/model_best.h5
5995 epoch_end_callback epoch 1849 lr 1e-06
5996 Epoch 1851/10000
5997 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
5998 epoch_end_callback epoch 1850 lr 1e-06
5999 Epoch 1852/10000
6000 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6001 epoch_end_callback epoch 1851 lr 1e-06
6002 Epoch 1853/10000
6003 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6004 epoch_end_callback epoch 1852 lr 1e-06
6005 Epoch 1854/10000
6006 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6007 epoch_end_callback epoch 1853 lr 1e-06
6008 Epoch 1855/10000
```



```
6009 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6010 epoch_end_callback epoch 1854 lr 1e-06
6011 Epoch 1856/10000
6012 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6013 epoch_end_callback epoch 1855 lr 1e-06
6014 Epoch 1857/10000
6015 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6016 epoch_end_callback epoch 1856 lr 1e-06
6017 Epoch 1858/10000
6018 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6019 epoch_end_callback epoch 1857 lr 1e-06
6020 Epoch 1859/10000
6021 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6022 epoch_end_callback epoch 1858 lr 1e-06
6023 Epoch 1860/10000
6024 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6025
6026 Epoch 01860: saving model to model/model_best.h5
6027 epoch_end_callback epoch 1859 lr 1e-06
6028 Epoch 1861/10000
6029 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6030 epoch_end_callback epoch 1860 lr 1e-06
6031 Epoch 1862/10000
6032 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6033 epoch_end_callback epoch 1861 lr 1e-06
6034 Epoch 1863/10000
6035 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6036 epoch_end_callback epoch 1862 lr 1e-06
```

```
6037 Epoch 1864/10000
6038   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6039 epoch_end_callback epoch 1863 lr 1e-06
6040 Epoch 1865/10000
6041   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6042 epoch_end_callback epoch 1864 lr 1e-06
6043 Epoch 1866/10000
6044   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6045 epoch_end_callback epoch 1865 lr 1e-06
6046 Epoch 1867/10000
6047   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6048 epoch_end_callback epoch 1866 lr 1e-06
6049 Epoch 1868/10000
6050   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6051 epoch_end_callback epoch 1867 lr 1e-06
6052 Epoch 1869/10000
6053   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6054 epoch_end_callback epoch 1868 lr 1e-06
6055 Epoch 1870/10000
6056   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6057
6058 Epoch 1870: saving model to model/model_best.h5
6059 epoch_end_callback epoch 1869 lr 1e-06
6060 Epoch 1871/10000
6061   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
6062 epoch_end_callback epoch 1870 lr 1e-06
6063 Epoch 1872/10000
6064   - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
        .0027 - val_mean_squared_error: 0.0027
```

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6065 epoch_end_callback epoch 1871 lr 1e-06
6066 Epoch 1873/10000
6067 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6068 epoch_end_callback epoch 1872 lr 1e-06
6069 Epoch 1874/10000
6070 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6071 epoch_end_callback epoch 1873 lr 1e-06
6072 Epoch 1875/10000
6073 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6074 epoch_end_callback epoch 1874 lr 1e-06
6075 Epoch 1876/10000
6076 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6077 epoch_end_callback epoch 1875 lr 1e-06
6078 Epoch 1877/10000
6079 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6080 epoch_end_callback epoch 1876 lr 1e-06
6081 Epoch 1878/10000
6082 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6083 epoch_end_callback epoch 1877 lr 1e-06
6084 Epoch 1879/10000
6085 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6086 epoch_end_callback epoch 1878 lr 1e-06
6087 Epoch 1880/10000
6088 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6089
6090 Epoch 01880: saving model to model/model_best.h5
6091 epoch_end_callback epoch 1879 lr 1e-06
6092 Epoch 1881/10000
6093 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
```

```
6093 .0027 - val_mean_squared_error: 0.0027
6094 epoch_end_callback epoch 1880 lr 1e-06
6095 Epoch 1882/10000
6096 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6097 epoch_end_callback epoch 1881 lr 1e-06
6098 Epoch 1883/10000
6099 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6100 epoch_end_callback epoch 1882 lr 1e-06
6101 Epoch 1884/10000
6102 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6103 epoch_end_callback epoch 1883 lr 1e-06
6104 Epoch 1885/10000
6105 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6106 epoch_end_callback epoch 1884 lr 1e-06
6107 Epoch 1886/10000
6108 - 1s - loss: 0.0048 - mean_squared_error: 0.0048 - val_loss: 0
.0027 - val_mean_squared_error: 0.0027
6109 epoch_end_callback epoch 1885 lr 1e-06
6110 Epoch 01886: early stopping
6111 #####show result#####
6112 history.png has been saved!
6113
6114 Process finished with exit code 0
6115
```