```
1  ssh://root@103.254.67.181:10006/usr/bin/python -u /home/
   sunfengzhen/pycharm/
   interval_pred10_goontrain_resultpd00_predrnnpp/
   interval_pred10_goontrain_result00.py
2  pid memory used =  0.27 Gbytes
3  *************mode: test *************
4  load data... data/radar500_train001
5  data areas  1296
6  gen index
7  len(frames_file_name) : 4536
8  there are 216 sequences
9  there are 4536 pictures
10 *************mode: train *************
11 load data... data/radar500_train001
12 data areas  1296
13 gen index
14 len(frames_file_name) : 22680
15 there are 1080 sequences
16 there are 22680 pictures
17 pid memory used =  4.34 Gbytes
18 Initializing models
19 num_hidden : [128, 64, 64, 64]
20 2019-08-19 06:32:49.677179: I tensorflow/core/platform/
   cpu_feature_guard.cc:141] Your CPU supports instructions that
   this TensorFlow binary was not compiled to use: AVX2 FMA
21 2019-08-19 06:32:50.061859: I tensorflow/core/common_runtime/gpu/
   gpu_device.cc:1432] Found device 0 with properties:
22 name: GeForce GTX 1080 Ti major: 6 minor: 1 memoryClockRate(GHz
   ): 1.582
23 pciBusID: 0000:82:00.0
24 totalMemory: 10.92GiB freeMemory: 10.76GiB
25 2019-08-19 06:32:50.062081: I tensorflow/core/common_runtime/gpu/
   gpu_device.cc:1511] Adding visible gpu devices: 0
26 2019-08-19 06:32:50.658793: I tensorflow/core/common_runtime/gpu/
   gpu_device.cc:982] Device interconnect StreamExecutor with
   strength 1 edge matrix:
27 2019-08-19 06:32:50.658878: I  tensorflow/core/common_runtime/gpu/
```

```
27  gpu_device.cc:988]        0
28  2019-08-19 06:32:50.658897: I tensorflow/core/common_runtime/gpu/
    gpu_device.cc:1001] 0:    N
29  2019-08-19 06:32:50.659304: 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)
30  2019-08-19 06:35:42.700051: W tensorflow/core/common_runtime/
    bfc_allocator.cc:211] Allocator (GPU_0_bfc) ran out of memory
    trying to allocate 2.10GiB. The caller indicates that this is not
     a failure, but may mean that there could be performance gains if
     more memory were available.
31  2019-08-19 06:35:42.714251: W tensorflow/core/common_runtime/
    bfc_allocator.cc:211] Allocator (GPU_0_bfc) ran out of memory
    trying to allocate 2.07GiB. The caller indicates that this is not
     a failure, but may mean that there could be performance gains if
     more memory were available.
32  itr: 100
33  training loss: 16191.574
34  itr: 200
35  training loss: 57500.293
36  itr: 300
37  training loss: 40441.395
38  itr: 400
39  training loss: 48151.75
40  itr: 500
41  training loss: 28283.441
42  itr: 600
43  training loss: 11950.053
44  itr: 700
45  training loss: 6729.4316
46  itr: 800
47  training loss: 22379.648
48  itr: 900
49  training loss: 10405.692
50  itr: 1000
```

51 `training loss: 15731.679`

52 `test...`

53 `mse per seq: 42854.25965824834`

54 `1476.896526477955`

55 `2093.269846598307`

56 `2770.709890294958`

57 `3469.6524754276984`

58 `4075.58901892768`

59 `4612.8050209327985`

60 `5216.855795966254`

61 `5805.075587519893`

62 `6386.226399739583`

63 `6947.179096363209`

64 `psnr per frame: 10.784573`

65 `15.00896`

66 `13.530643`

67 `12.361611`

68 `11.422418`

69 `10.692314`

70 `10.085193`

71 `9.468519`

72 `8.907209`

73 `8.399777`

74 `7.969079`

75 `fmae per frame: 6443.661`

76 `3464.9753`

77 `4086.863`

78 `4799.6016`

79 `5539.5293`

80 `6194.394`

81 `6771.32`

82 `7437.82`

83 `8074.8833`

84 `8722.72`

85 `9344.502`

86 `ssim per frame: 0.58237135`

87 `0.66562665`

```
 88 0.64683694
 89 0.62736183
 90 0.6087229
 91 0.59040046
 92 0.57380575
 93 0.55425185
 94 0.5373299
 95 0.51826555
 96 0.50111085
 97 sharpness per frame: 174.5625
 98 183.68982
 99 160.17592
100 154.17592
101 157.83797
102 163.22223
103 171.05092
104 178.74074
105 184.80556
106 192.23148
107 199.69444
108 itr: 1100
109 training loss: 13814.807
110 itr: 1200
111 training loss: 9246.17
112 itr: 1300
113 training loss: 17138.56
114 itr: 1400
115 training loss: 4616.334
116 itr: 1500
117 training loss: 9797.387
118 itr: 1600
119 training loss: 16881.91
120 itr: 1700
121 training loss: 12303.266
122 itr: 1800
123 training loss: 11286.254
124 itr: 1900
```

```
125  training loss: 7496.1743
126  itr: 2000
127  training loss: 12454.43
128  test...
129  mse per seq: 35803.15451876322
130  1374.0634768450702
131  2002.2597916214554
132  2552.8501490840204
133  3030.4104817708335
134  3467.2611756501374
135  3855.233590867784
136  4319.799181196425
137  4708.9398995858655
138  5079.515342147262
139  5412.821429994371
140  psnr per frame: 12.13553
141  15.339753
142  13.738045
143  12.803497
144  12.195052
145  11.79969
146  11.479344
147  11.192541
148  11.00653
149  10.923379
150  10.877478
151  fmae per frame: 5168.273
152  3107.742
153  3738.3232
154  4264.46
155  4689.045
156  5059.968
157  5389.9023
158  5829.3105
159  6208.5645
160  6553.8477
161  6841.565
```

```
162  ssim per frame: 0.6241458
163  0.6690162
164  0.6485045
165  0.636211
166  0.62894577
167  0.6217457
168  0.61597115
169  0.6086904
170  0.6052048
171  0.6033265
172  0.60384226
173  sharpness per frame: 178.59445
174  193.86574
175  181.56482
176  178.01389
177  176.54167
178  178.56018
179  175.11111
180  177.125
181  175.76389
182  175.375
183  174.02315
184  itr: 2100
185  training loss: 9443.695
186  itr: 2200
187  training loss: 12451.464
188  itr: 2300
189  training loss: 10218.412
190  itr: 2400
191  training loss: 4184.149
192  itr: 2500
193  training loss: 17361.498
194  itr: 2600
195  training loss: 10256.259
196  itr: 2700
197  training loss: 11708.978
198  itr: 2800
```

```
199  training loss: 9569.928
200  itr: 2900
201  training loss: 11245.363
202  itr: 3000
203  training loss: 10889.437
204  test...
205  mse per seq: 33222.0611923359
206  1298.1290489479347
207  1926.538399025246
208  2489.7110963044342
209  3004.7961993747285
210  3403.668521457248
211  3679.930820606373
212  4016.661668706823
213  4275.20612019405
214  4473.457540724013
215  4653.9618851697005
216  psnr per frame: 12.39459
217  15.599434
218  13.943437
219  12.9613285
220  12.300684
221  11.903406
222  11.685062
223  11.4933
224  11.376822
225  11.345389
226  11.337043
227  fmae per frame: 4980.249
228  2994.376
229  3710.831
230  4273.6973
231  4760.6187
232  5112.9707
233  5330.543
234  5623.173
235  5839.3965
```

```
236  6003.7075
237  6153.1763
238  ssim per frame: 0.6623264
239  0.7136039
240  0.6859447
241  0.6707288
242  0.6608144
243  0.65480286
244  0.6527622
245  0.6480577
246  0.64685845
247  0.64493173
248  0.6447591
249  sharpness per frame: 107.78566
250  146.41667
251  120.171295
252  110.98148
253  106.76852
254  103.34722
255  100.42593
256  99.12963
257  97.171295
258  95.82407
259  97.62037
260  itr: 3100
261  training loss: 10354.3125
262  itr: 3200
263  training loss: 8464.137
264  itr: 3300
265  training loss: 8965.039
266  itr: 3400
267  training loss: 7505.5527
268  itr: 3500
269  training loss: 15851.9375
270  itr: 3600
271  training loss: 14587.416
272  itr: 3700
```

```
273  training loss: 9516.901
274  itr: 3800
275  training loss: 4621.374
276  itr: 3900
277  training loss: 12383.463
278  itr: 4000
279  training loss: 10579.57
280  test...
281  mse per seq: 39795.676295457066
282  1269.3713220666957
283  1899.7298210991753
284  2532.74740713614
285  3178.3719386348016
286  3847.904705754033
287  4493.442139519586
288  5111.6984697977705
289  5538.362426051387
290  5847.635783301459
291  6076.412282096015
292  psnr per frame: 12.012845
293  15.697221
294  13.9936285
295  12.9265175
296  12.172588
297  11.59652
298  11.137031
299  10.797694
300  10.612337
301  10.587013
302  10.6079035
303  fmae per frame: 5215.3926
304  2724.613
305  3393.6143
306  3968.5408
307  4537.238
308  5111.418
309  5668.1084
```

```
310  6227.9434
311  6610.998
312  6868.81
313  7042.641
314  ssim per frame: 0.671748
315  0.72571325
316  0.69811136
317  0.6837976
318  0.67405134
319  0.6666766
320  0.6605945
321  0.6537956
322  0.65128285
323  0.65053266
324  0.65292406
325  sharpness per frame: 97.06481
326  145.10648
327  118.82407
328  113.10185
329  108.833336
330  97.76852
331  90.18519
332  82.39815
333  75.99537
334  70.50926
335  67.92593
336  itr: 4100
337  training loss: 11948.209
338  itr: 4200
339  training loss: 14336.5205
340  itr: 4300
341  training loss: 13012.321
342  itr: 4400
343  training loss: 7507.698
344  itr: 4500
345  training loss: 11804.879
346  itr: 4600
```

```
347  training loss: 18387.66
348  itr: 4700
349  training loss: 14907.357
350  itr: 4800
351  training loss: 10720.885
352  itr: 4900
353  training loss: 5660.2563
354  itr: 5000
355  training loss: 11032.208
356  test...
357  mse per seq: 36490.768955937136
358  1260.3400107489692
359  1980.6860998648185
360  2651.976631447121
361  3264.5794592963325
362  3731.8116678308556
363  4089.6509727195457
364  4491.2923417267975
365  4789.044103834364
366  5020.644465976291
367  5210.743202492043
368  psnr per frame: 12.105276
369  15.735167
370  13.867173
371  12.750145
372  12.004561
373  11.579026
374  11.317308
375  11.088408
376  10.944368
377  10.899465
378  10.867131
379  fmae per frame: 5124.239
380  2779.3062
381  3570.7651
382  4223.9824
383  4805.4443
```

```
384  5235.893
385  5553.8345
386  5925.3467
387  6192.6675
388  6395.2812
389  6559.863
390  ssim per frame: 0.66748416
391  0.72833323
392  0.6965674
393  0.6785954
394  0.6663655
395  0.659002
396  0.65542763
397  0.6503124
398  0.6481525
399  0.64600456
400  0.6460812
401  sharpness per frame: 108.06343
402  151.12038
403  115.71759
404  104.43519
405  100.64352
406  98.80093
407  98.916664
408  99.96296
409  100.84259
410  103.64352
411  106.55093
412  saved to checkpoints/radar_predrnn_pp
413  itr: 5100
414  training loss: 16879.588
415  itr: 5200
416  training loss: 11720.925
417  itr: 5300
418  training loss: 4720.383
419  itr: 5400
420  training loss: 55501.902
```

```
421  itr: 5500
422  training loss: 15675.008
423  itr: 5600
424  training loss: 7794.543
425  itr: 5700
426  training loss: 4011.4382
427  itr: 5800
428  training loss: 16165.885
429  itr: 5900
430  training loss: 14692.217
431  itr: 6000
432  training loss: 15577.669
433  test...
434  mse per seq: 38192.283164554174
435  1392.8292629100658
436  2123.985540036802
437  2806.3972009729455
438  3459.0231405187537
439  3934.3045919912834
440  4265.29625278049
441  4645.196499577275
442  4948.890489083749
443  5199.317109991003
444  5417.043076691804
445  psnr per frame: 11.690116
446  15.310844
447  13.552925
448  12.471068
449  11.71402
450  11.2414055
451  10.937182
452  10.655831
453  10.457454
454  10.331958
455  10.228475
456  fmae per frame: 5529.1685
457  3111.2017
```

```
458  3939.6672
459  4620.7495
460  5229.2847
461  5661.855
462  5956.7646
463  6314.806
464  6598.2524
465  6829.5244
466  7029.5815
467  ssim per frame: 0.6220852
468  0.68048286
469  0.65339446
470  0.63796663
471  0.62646973
472  0.6186329
473  0.6135429
474  0.6060142
475  0.6005271
476  0.5940274
477  0.5897938
478  sharpness per frame: 148.13982
479  180.96297
480  152.125
481  149.36574
482  145.98611
483  141.23148
484  138.78703
485  139.78241
486  141.12962
487  143.76852
488  148.25926
489  itr: 6100
490  training loss: 16671.127
491  itr: 6200
492  training loss: 17016.57
493  itr: 6300
494  training loss: 8053.794
```

```
495  itr: 6400
496  training loss: 11007.977
497  itr: 6500
498  training loss: 15624.711
499  itr: 6600
500  training loss: 24031.822
501  itr: 6700
502  training loss: 13385.505
503  itr: 6800
504  training loss: 9868.186
505  itr: 6900
506  training loss: 17762.426
507  itr: 7000
508  training loss: 17021.332
509  test...
510  mse per seq: 56893.19927046034
511  1504.5961673877857
512  2609.0081035472726
513  3749.81753483525
514  4825.642430623372
515  5693.397437766746
516  6385.011909202293
517  7093.297376279478
518  7754.029637089482
519  8353.952843560113
520  8924.445830168548
521  psnr per frame: 9.692744
522  15.037267
523  12.667284
524  11.090141
525  9.990501
526  9.209817
527  8.641186
528  8.145065
529  7.7118244
530  7.366103
531  7.068252
```

```
532  fmae per frame: 7251.5205
533  2966.3167
534  4108.857
535  5259.2656
536  6340.656
537  7232.3394
538  7951.636
539  8693.508
540  9378.638
541  9998.556
542  10585.434
543  ssim per frame: 0.58750284
544  0.6990845
545  0.6594477
546  0.6299065
547  0.6064386
548  0.58587855
549  0.5692588
550  0.55199414
551  0.53758895
552  0.5235381
553  0.51189256
554  sharpness per frame: 155.82639
555  155.34259
556  134.93518
557  136.11111
558  142.2963
559  148.41667
560  154.89815
561  162.48148
562  169.08333
563  174.31018
564  180.38889
565  itr: 7100
566  training loss: 2067.8147
567  itr: 7200
568  training loss: 14269.418
```

```
569  itr: 7300
570  training loss: 16287.409
571  itr: 7400
572  training loss: 16040.579
573  itr: 7500
574  training loss: 10134.472
575  itr: 7600
576  training loss: 20693.87
577  itr: 7700
578  training loss: 13737.855
579  itr: 7800
580  training loss: 9680.943
581  itr: 7900
582  training loss: 9444.875
583  itr: 8000
584  training loss: 6928.378
585  test...
586  mse per seq: 42001.4362534417
587  1332.1084736011646
588  2070.880881132903
589  2824.9368393509476
590  3578.2536516542787
591  4198.514305679886
592  4673.826790986238
593  5200.414679350676
594  5646.717481542517
595  6048.910134068242
596  6426.873016074852
597  psnr per frame: 11.2649975
598  15.4955015
599  13.624476
600  12.369457
601  11.454062
602  10.816981
603  10.390221
604  9.998243
605  9.704103
```

```
606  9.492424
607  9.304509
608  fmae per frame: 5990.026
609  3138.7097
610  3927.848
611  4671.444
612  5385.725
613  5982.525
614  6438.6055
615  6961.855
616  7403.406
617  7805.3257
618  8184.8145
619  ssim per frame: 0.6387204
620  0.7217826
621  0.6882883
622  0.6653733
623  0.64814645
624  0.6343328
625  0.6249389
626  0.61331415
627  0.6050422
628  0.5962752
629  0.5897097
630  sharpness per frame: 107.51805
631  120.93056
632  99.68519
633  98.666664
634  101.52778
635  103.77778
636  106.02778
637  108.25
638  111.23148
639  111.75
640  113.333336
641  itr: 8100
642  training loss: 4188.1562
```

```
643  itr: 8200
644  training loss: 12680.747
645  itr: 8300
646  training loss: 11910.83
647  itr: 8400
648  training loss: 6262.1367
649  itr: 8500
650  training loss: 8725.71
651  itr: 8600
652  training loss: 7444.297
653  itr: 8700
654  training loss: 5249.0376
655  itr: 8800
656  training loss: 10975.673
657  itr: 8900
658  training loss: 5559.4204
659  itr: 9000
660  training loss: 16148.076
661  test...
662  mse per seq: 34314.527267738624
663  1290.5571998313621
664  1914.9071092958804
665  2459.2670853226273
666  2976.1702222470885
667  3404.514324894658
668  3749.9870904993127
669  4165.100555702492
670  4497.50633126718
671  4793.375155837448
672  5063.142192840576
673  psnr per frame: 12.285524
674  15.63161
675  13.942544
676  12.984533
677  12.294747
678  11.866229
679  11.584526
```

680 11.32566
681 11.154793
682 11.0680485
683 11.002555
684 fmae per frame: 5141.014
685 3034.0151
686 3760.7395
687 4334.86
688 4814.226
689 5190.941
690 5467.5522
691 5825.147
692 6097.23
693 6335.7397
694 6549.6914
695 ssim per frame: 0.6595932
696 0.7151559
697 0.6832195
698 0.66686106
699 0.6570476
700 0.65095216
701 0.648586
702 0.64443976
703 0.643544
704 0.6424966
705 0.6436301
706 sharpness per frame: 80.970375
707 105.25926
708 84.44907
709 80.861115
710 80.236115
711 79.46296
712 77.69444
713 76.28241
714 75.09722
715 75.34259
716 75.01852

```
717  itr: 9100
718  training loss: 12352.75
719  itr: 9200
720  training loss: 13318.594
721  itr: 9300
722  training loss: 7025.714
723  itr: 9400
724  training loss: 10197.487
725  itr: 9500
726  training loss: 12274.644
727  itr: 9600
728  training loss: 18055.45
729  itr: 9700
730  training loss: 14350.701
731  itr: 9800
732  training loss: 12937.046
733  itr: 9900
734  training loss: 6781.871
735  itr: 10000
736  training loss: 15732.596
737  test...
738  mse per seq: 35429.29673258463
739  1318.3051715426975
740  1996.9903527719002
741  2601.4196246111833
742  3157.2882080078125
743  3591.0114113136574
744  3897.166892722801
745  4269.793770684137
746  4580.053346987123
747  4865.375335128219
748  5151.8926188151045
749  psnr per frame: 11.741565
750  15.530556
751  13.740361
752  12.660061
753  11.8988
```

```
754  11.393187
755  11.050963
756  10.694706
757  10.400757
758  10.150276
759  9.89599
760  fmae per frame: 5720.218
761  3106.653
762  3985.0422
763  4698.7134
764  5321.878
765  5800.3877
766  6137.9307
767  6545.693
768  6886.425
769  7201.057
770  7518.3936
771  ssim per frame: 0.6310468
772  0.71361417
773  0.6761121
774  0.6530342
775  0.63635015
776  0.6245362
777  0.61672515
778  0.60724187
779  0.60062677
780  0.5937537
781  0.58847356
782  sharpness per frame: 103.411575
783  111.921295
784  97.97222
785  98.078705
786  98.46759
787  99.98148
788  102.43056
789  104.421295
790  105.60648
```

```
791  107.02778
792  108.208336
793  saved to checkpoints/radar_predrnn_pp
794  itr: 10100
795  training loss: 7588.5103
796  itr: 10200
797  training loss: 5691.5073
798  itr: 10300
799  training loss: 6366.718
800  itr: 10400
801  training loss: 10225.123
802  itr: 10500
803  training loss: 12535.766
804  itr: 10600
805  training loss: 6554.549
806  itr: 10700
807  training loss: 4792.4946
808  itr: 10800
809  training loss: 6617.35
810  itr: 10900
811  training loss: 2496.8955
812  itr: 11000
813  training loss: 16751.684
814  test...
815  mse per seq: 30084.07311206394
816  1230.2530370641637
817  1830.8963411119248
818  2337.2242392080802
819  2778.8470580489548
820  3112.0127687807435
821  3336.6590632685907
822  3604.9182239108613
823  3800.1144677621346
824  3954.4290892989548
825  4098.718823609529
826  psnr per frame: 12.616816
827  15.832384
```

828 14.118565
829 13.166674
830 12.532237
831 12.153102
832 11.927502
833 11.735582
834 11.61697
835 11.5689125
836 11.516227
837 fmae per frame: 4863.3843
838 2790.126
839 3555.3782
840 4161.735
841 4657.461
842 5019.4644
843 5254.5605
844 5534.5664
845 5734.6987
846 5889.8433
847 6036.007
848 ssim per frame: 0.64557135
849 0.7197773
850 0.6834252
851 0.6610865
852 0.64588934
853 0.63646483
854 0.6307482
855 0.6245243
856 0.62098116
857 0.617545
858 0.61527145
859 sharpness per frame: 123.77315
860 126.38426
861 111.19444
862 111.21759
863 113.791664
864 117.78704

865 122.208336
866 127.77778
867 131.89815
868 135.91203
869 139.56018
870 itr: 11100
871 training loss: 6705.1436
872 itr: 11200
873 training loss: 7080.6963
874 itr: 11300
875 training loss: 7194.187
876 itr: 11400
877 training loss: 13276.701
878 itr: 11500
879 training loss: 8915.438
880 itr: 11600
881 training loss: 6614.58
882 itr: 11700
883 training loss: 12283.231
884 itr: 11800
885 training loss: 6720.09
886 itr: 11900
887 training loss: 13437.351
888 itr: 12000
889 training loss: 7438.0776
890 test...
891 mse per seq: 38950.77887867115
892 1295.8919576009114
893 2059.5799696180557
894 2784.0706982082793
895 3471.2415568033853
896 3997.1303354899087
897 4373.446991814508
898 4804.525309527362
899 5132.021420937997
900 5401.224072350396
901 5631.646566320349

```
902  psnr per frame: 11.84543
903  15.661019
904  13.735114
905  12.575536
906  11.787116
907  11.3064575
908  11.023875
909  10.76964
910  10.5972185
911  10.521812
912  10.476512
913  fmae per frame: 5348.202
914  2896.056
915  3656.847
916  4325.981
917  4952.4136
918  5434.793
919  5777.0103
920  6191.453
921  6504.672
922  6761.824
923  6980.9688
924  ssim per frame: 0.676544
925  0.7349495
926  0.7043042
927  0.6875112
928  0.6765759
929  0.6689578
930  0.66528815
931  0.6594377
932  0.65759593
933  0.6552076
934  0.6556119
935  sharpness per frame: 117.88287
936  151.78241
937  135.09259
938  129.30556
```

```
939  121.861115
940  115.64815
941  111.46296
942  108.36574
943  104.796295
944  102.14815
945  98.36574
946  itr: 12100
947  training loss: 10386.842
948  itr: 12200
949  training loss: 9225.277
950  itr: 12300
951  training loss: 7024.9336
952  itr: 12400
953  training loss: 8889.508
954  itr: 12500
955  training loss: 11219.752
956  itr: 12600
957  training loss: 13404.103
958  itr: 12700
959  training loss: 5678.54
960  itr: 12800
961  training loss: 10701.903
962  itr: 12900
963  training loss: 10720.846
964  itr: 13000
965  training loss: 8559.895
966  test...
967  mse per seq: 30550.009738498266
968  1195.1236072116428
969  1789.2357714617694
970  2285.8879665798613
971  2717.8373413085938
972  3075.3318501225226
973  3335.585302847403
974  3667.468933529324
975  3933.5243952715837
```

```
 976  4165.24843399613
 977  4384.766136169434
 978  psnr per frame: 12.762021
 979  15.953026
 980  14.233782
 981  13.299341
 982  12.694456
 983  12.317455
 984  12.101799
 985  11.89527
 986  11.763986
 987  11.704139
 988  11.656956
 989  fmae per frame: 4739.3774
 990  2685.4932
 991  3471.4778
 992  4053.0872
 993  4509.4185
 994  4858.876
 995  5089.3936
 996  5386.669
 997  5606.3022
 998  5784.7495
 999  5948.306
1000  ssim per frame: 0.6675591
1001  0.73399705
1002  0.696693
1003  0.67582434
1004  0.66349024
1005  0.6563468
1006  0.6533005
1007  0.64970505
1008  0.6488437
1009  0.64793766
1010  0.6494527
1011  sharpness per frame: 127.42407
1012  140.80092
```

```
1013  120.833336
1014  120.28241
1015  122.0
1016  123.05093
1017  124.68056
1018  126.50463
1019  130.0787
1020  132.23148
1021  133.77777
1022  itr: 13100
1023  training loss: 8411.966
1024  itr: 13200
1025  training loss: 12835.392
1026  itr: 13300
1027  training loss: 10159.901
1028  itr: 13400
1029  training loss: 4349.7017
1030  itr: 13500
1031  training loss: 14182.166
1032  itr: 13600
1033  training loss: 6493.628
1034  itr: 13700
1035  training loss: 6904.731
1036  itr: 13800
1037  training loss: 8816.938
1038  itr: 13900
1039  training loss: 13468.591
1040  itr: 14000
1041  training loss: 10986.178
1042  test...
1043  mse per seq: 32958.50700604474
1044  1222.980630380136
1045  1873.2252007943612
1046  2454.8284426088685
1047  2992.2261544686776
1048  3388.2138875325522
1049  3658.335959540473
```

```
1050  3984.686913949472
1051  4246.507558186849
1052  4463.701819525824
1053  4673.800439057527
1054  psnr per frame: 12.309454
1055  15.867949
1056  14.068451
1057  13.017011
1058  12.2935295
1059  11.854951
1060  11.588569
1061  11.330237
1062  11.140745
1063  11.023369
1064  10.909727
1065  fmae per frame: 4963.121
1066  2868.745
1067  3631.8115
1068  4236.7554
1069  4756.92
1070  5115.3716
1071  5336.756
1072  5623.685
1073  5844.034
1074  6021.4897
1075  6195.643
1076  ssim per frame: 0.65640354
1077  0.730404
1078  0.6917538
1079  0.6697997
1080  0.6548295
1081  0.6457882
1082  0.641554
1083  0.6360648
1084  0.6333149
1085  0.630664
1086  0.6298626
```

```
1087 sharpness per frame: 160.23889
1088 144.32408
1089 138.45833
1090 143.80556
1091 150.73611
1092 157.82408
1093 164.04167
1094 170.10648
1095 173.72685
1096 177.64815
1097 181.71759
1098 itr: 14100
1099 training loss: 16716.436
1100 itr: 14200
1101 training loss: 4461.1616
1102 itr: 14300
1103 training loss: 6578.011
1104 itr: 14400
1105 training loss: 5240.996
1106 itr: 14500
1107 training loss: 9414.818
1108 itr: 14600
1109 training loss: 15357.973
1110 itr: 14700
1111 training loss: 10929.676
1112 itr: 14800
1113 training loss: 10411.259
1114 itr: 14900
1115 training loss: 11465.13
1116 itr: 15000
1117 training loss: 8852.222
1118 test...
1119 mse per seq: 27562.210870954725
1120 1136.0902828640408
1121 1666.1474951284904
1122 2088.4359012179902
1123 2448.263557151512
```

```
1124  2742.7389322916665
1125  2969.8421780621566
1126  3270.7304122359665
1127  3528.5365058051216
1128  3751.0854209617332
1129  3960.340185236048
1130  psnr per frame: 13.136297
1131  16.170424
1132  14.526834
1133  13.681597
1134  13.118918
1135  12.765957
1136  12.543108
1137  12.328698
1138  12.1562605
1139  12.06757
1140  12.00361
1141  fmae per frame: 4511.4917
1142  2658.298
1143  3434.6653
1144  3969.6729
1145  4358.8213
1146  4633.7354
1147  4815.373
1148  5059.308
1149  5245.176
1150  5396.851
1151  5543.0146
1152  ssim per frame: 0.6698626
1153  0.73586535
1154  0.6954772
1155  0.675042
1156  0.6633025
1157  0.6574504
1158  0.65534204
1159  0.6530491
1160  0.6536651
```

```
1161  0.65395385
1162  0.65547854
1163  sharpness per frame: 156.68379
1164  164.27777
1165  147.53703
1166  145.91667
1167  147.57408
1168  151.60648
1169  155.80092
1170  159.41203
1171  162.72685
1172  164.88889
1173  167.09723
1174  saved to checkpoints/radar_predrnn_pp
1175  itr: 15100
1176  training loss: 6369.185
1177  itr: 15200
1178  training loss: 6317.2896
1179  itr: 15300
1180  training loss: 7507.9585
1181  itr: 15400
1182  training loss: 11444.385
1183  itr: 15500
1184  training loss: 9950.358
1185  itr: 15600
1186  training loss: 10535.751
1187  itr: 15700
1188  training loss: 10955.715
1189  itr: 15800
1190  training loss: 12408.418
1191  itr: 15900
1192  training loss: 7255.9697
1193  itr: 16000
1194  training loss: 11087.468
1195  test...
1196  mse per seq: 34774.151968779384
1197  1225.1535469337746
```

```
1198  1894.5449221575702
1199  2522.631474530255
1200  3112.985980846264
1201  3570.065689086914
1202  3880.0756352742515
1203  4254.7090095237445
1204  4539.358724806044
1205  4781.273436369719
1206  4993.35354925085
1207  psnr per frame: 12.105097
1208  15.887119
1209  14.034447
1210  12.907739
1211  12.120629
1212  11.623796
1213  11.331042
1214  11.0384865
1215  10.831343
1216  10.694787
1217  10.581581
1218  fmae per frame: 5016.0674
1219  2689.42
1220  3481.2817
1221  4118.669
1222  4688.2886
1223  5122.5586
1224  5413.7104
1225  5782.7104
1226  6060.2446
1227  6298.438
1228  6505.3506
1229  ssim per frame: 0.6509906
1230  0.72497517
1231  0.6880412
1232  0.6676422
1233  0.6531373
1234  0.6433
```

```
1235  0.6373372
1236  0.62991863
1237  0.62575287
1238  0.62129253
1239  0.61850893
1240  sharpness per frame: 160.48056
1241  147.91667
1242  139.97685
1243  142.87038
1244  148.78241
1245  155.13426
1246  161.19908
1247  167.43518
1248  174.41203
1249  180.81018
1250  186.26852
1251  itr: 16100
1252  training loss: 5652.008
1253  itr: 16200
1254  training loss: 11238.973
1255  itr: 16300
1256  training loss: 5657.2085
1257  itr: 16400
1258  training loss: 7439.9614
1259  itr: 16500
1260  training loss: 3109.1243
1261  itr: 16600
1262  training loss: 12640.241
1263  itr: 16700
1264  training loss: 4194.693
1265  itr: 16800
1266  training loss: 12379.352
1267  itr: 16900
1268  training loss: 16003.344
1269  itr: 17000
1270  training loss: 9186.877
1271  test...
```

```
1272  mse per seq: 26677.05606291029
1273  1112.2059396814418
1274  1629.6014036955658
1275  2055.737798337583
1276  2431.1000527275933
1277  2727.0811459576644
1278  2928.998448972349
1279  3186.9106453789605
1280  3380.2903534218117
1281  3540.5716692606607
1282  3684.558605476662
1283  psnr per frame: 13.202273
1284  16.247622
1285  14.608843
1286  13.725954
1287  13.119542
1288  12.754608
1289  12.550297
1290  12.368125
1291  12.254777
1292  12.206287
1293  12.18667
1294  fmae per frame: 4480.284
1295  2768.177
1296  3457.5588
1297  3942.6501
1298  4330.6045
1299  4617.5503
1300  4787.5684
1301  5016.959
1302  5176.2993
1303  5299.455
1304  5406.018
1305  ssim per frame: 0.6816622
1306  0.74662083
1307  0.70879215
1308  0.68919706
```

```
1309  0.6774967
1310  0.67059755
1311  0.6678399
1312  0.6644795
1313  0.6637738
1314  0.663071
1315  0.6647527
1316  sharpness per frame: 135.26343
1317  162.59259
1318  141.7963
1319  138.12038
1320  136.66203
1321  134.18056
1322  132.125
1323  129.48611
1324  128.00926
1325  125.81944
1326  123.84259
1327  itr: 17100
1328  training loss: 14214.133
1329  itr: 17200
1330  training loss: 7880.315
1331  itr: 17300
1332  training loss: 5503.8633
1333  itr: 17400
1334  training loss: 12512.146
1335  itr: 17500
1336  training loss: 11413.721
1337  itr: 17600
1338  training loss: 11055.939
1339  itr: 17700
1340  training loss: 2363.4058
1341  itr: 17800
1342  training loss: 3373.1167
1343  itr: 17900
1344  training loss: 9144.911
1345  itr: 18000
```

```
1346  training loss: 9014.17
1347  test...
1348  mse per seq: 26360.27050611708
1349  1102.5562349955242
1350  1615.2768161914967
1351  2041.4303871437355
1352  2415.2549017447013
1353  2700.0353797630028
1354  2887.1985092163086
1355  3133.98492219713
1356  3326.6755527920195
1357  3492.542401349103
1358  3645.315400724058
1359  psnr per frame: 13.184395
1360  16.31487
1361  14.6552305
1362  13.763817
1363  13.146075
1364  12.765539
1365  12.538875
1366  12.33439
1367  12.184961
1368  12.100905
1369  12.039277
1370  fmae per frame: 4395.0864
1371  2592.0645
1372  3323.8025
1373  3849.7903
1374  4265.2915
1375  4556.3496
1376  4722.196
1377  4945.68
1378  5104.967
1379  5236.3213
1380  5354.403
1381  ssim per frame: 0.677347
1382  0.75078046
```

```
1383  0.7096912
1384  0.68688214
1385  0.6729611
1386  0.6650865
1387  0.66151935
1388  0.65772134
1389  0.6567794
1390  0.6556508
1391  0.65639764
1392  sharpness per frame: 181.63936
1393  198.32408
1394  181.59723
1395  176.33797
1396  173.52315
1397  175.2037
1398  178.31944
1399  181.23611
1400  182.9537
1401  184.55556
1402  184.34259
1403  itr: 18100
1404  training loss: 8357.783
1405  itr: 18200
1406  training loss: 11433.82
1407  itr: 18300
1408  training loss: 11385.378
1409  itr: 18400
1410  training loss: 13383.048
1411  itr: 18500
1412  training loss: 9443.361
1413  itr: 18600
1414  training loss: 5794.009
1415  itr: 18700
1416  training loss: 11021.581
1417  itr: 18800
1418  training loss: 7097.977
1419  itr: 18900
```

```
1420  training loss: 6915.996
1421  itr: 19000
1422  training loss: 13469.206
1423  test...
1424  mse per seq: 22535.303357866076
1425  1060.5375239054363
1426  1480.0570203993057
1427  1805.4909865767868
1428  2085.910996613679
1429  2319.05349194562
1430  2475.0786850540726
1431  2641.1547187522606
1432  2782.5924596433288
1433  2887.561146630181
1434  2997.866328345405
1435  psnr per frame: 13.614757
1436  16.474497
1437  14.978465
1438  14.213482
1439  13.6605425
1440  13.273132
1441  13.03506
1442  12.830555
1443  12.65329
1444  12.563013
1445  12.465533
1446  fmae per frame: 4239.543
1447  2637.8354
1448  3310.0034
1449  3767.3767
1450  4108.5845
1451  4372.5034
1452  4542.9917
1453  4722.4443
1454  4869.703
1455  4977.371
1456  5086.619
```

```
1457  ssim per frame: 0.6690022
1458  0.7474579
1459  0.70604056
1460  0.68298334
1461  0.66903585
1462  0.659893
1463  0.65337116
1464  0.6479274
1465  0.6442042
1466  0.6407744
1467  0.6383336
1468  sharpness per frame: 211.25696
1469  214.96297
1470  202.98148
1471  200.20833
1472  203.70833
1473  208.74538
1474  211.60648
1475  215.3287
1476  216.96759
1477  218.15277
1478  219.90741
1479  itr: 19100
1480  training loss: 7624.4937
1481  itr: 19200
1482  training loss: 6818.9287
1483  itr: 19300
1484  training loss: 3587.0327
1485  itr: 19400
1486  training loss: 9241.181
1487  itr: 19500
1488  training loss: 11135.711
1489  itr: 19600
1490  training loss: 8738.571
1491  itr: 19700
1492  training loss: 8177.3374
1493  itr: 19800
```

```
1494 training loss: 10372.61
1495 itr: 19900
1496 training loss: 13638.216
1497 itr: 20000
1498 training loss: 7172.8037
1499 test...
1500 mse per seq: 25133.710898505316
1501 1037.8254168475116
1502 1401.6919848124187
1503 1749.599494792797
1504 2046.3214622780129
1505 2403.71506245931
1506 2713.9903058652526
1507 3068.9178746541343
1508 3348.40255412349
1509 3579.6810017338507
1510 3783.56574093854
1511 psnr per frame: 13.548342
1512 16.53101
1513 15.19433
1514 14.395405
1515 13.870873
1516 13.342517
1517 12.933684
1518 12.576217
1519 12.336249
1520 12.201338
1521 12.101794
1522 fmae per frame: 4066.7
1523 2582.7473
1524 3042.8953
1525 3399.51
1526 3655.8374
1527 3975.892
1528 4251.512
1529 4585.316
1530 4846.3506
```

```
1531  5064.6846
1532  5262.253
1533  ssim per frame: 0.6896661
1534  0.7489853
1535  0.71767855
1536  0.7018294
1537  0.6931712
1538  0.6859669
1539  0.6797178
1540  0.6731407
1541  0.6687841
1542  0.66479164
1543  0.6625955
1544  sharpness per frame: 230.69121
1545  231.63889
1546  228.59259
1547  226.10185
1548  229.70833
1549  229.93056
1550  229.91667
1551  230.33333
1552  232.49538
1553  234.43056
1554  233.76389
1555  saved to checkpoints/radar_predrnn_pp
1556  itr: 20100
1557  training loss: 11973.293
1558  itr: 20200
1559  training loss: 6931.383
1560  itr: 20300
1561  training loss: 9691.889
1562  itr: 20400
1563  training loss: 11965.711
1564  itr: 20500
1565  training loss: 11260.564
1566  itr: 20600
1567  training loss: 13023.53
```

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1568  itr: 20700
1569  training loss: 4521.354
1570  itr: 20800
1571  training loss: 13909.689
1572  itr: 20900
1573  training loss: 7923.9053
1574  itr: 21000
1575  training loss: 8701.981
1576  test...
1577  mse per seq: 24519.407750800805
1578  1008.7212000246401
1579  1349.295635647244
1580  1673.8715256585015
1581  1994.1936798095703
1582  2339.49301232232
1583  2641.8564922191476
1584  2991.4783279984085
1585  3273.813721974691
1586  3508.068641238742
1587  3738.6155139075386
1588  psnr per frame: 13.696676
1589  16.671124
1590  15.370654
1591  14.612877
1592  14.020204
1593  13.510552
1594  13.087116
1595  12.723419
1596  12.464065
1597  12.313618
1598  12.193141
1599  fmae per frame: 3902.9146
1600  2393.1777
1601  2866.458
1602  3213.1287
1603  3512.7263
1604  3833.6365
```

```
1605  4107.0474
1606  4432.107
1607  4685.1714
1608  4891.2583
1609  5094.4336
1610  ssim per frame: 0.7003155
1611  0.75700736
1612  0.72607064
1613  0.7112068
1614  0.7025346
1615  0.6953399
1616  0.6895874
1617  0.6838844
1618  0.68115604
1619  0.6784869
1620  0.67788124
1621  sharpness per frame: 198.89537
1622  213.19908
1623  202.15741
1624  197.07408
1625  196.23148
1626  196.40741
1627  196.49074
1628  197.89352
1629  196.27777
1630  197.27777
1631  195.94444
1632  itr: 21100
1633  training loss: 7735.246
1634  itr: 21200
1635  training loss: 10508.97
1636  itr: 21300
1637  training loss: 6217.395
1638  itr: 21400
1639  training loss: 9983.973
1640  itr: 21500
1641  training loss: 13486.844
```

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1642  itr: 21600
1643  training loss: 10688.146
1644  itr: 21700
1645  training loss: 9413.712
1646  itr: 21800
1647  training loss: 9251.92
1648  itr: 21900
1649  training loss: 14308.809
1650  itr: 22000
1651  training loss: 7999.145
1652  test...
1653  mse per seq: 20888.87509169402
1654  987.2680353235315
1655  1282.70751119543
1656  1538.244707884612
1657  1776.7917709350586
1658  2044.2172051888924
1659  2261.2871545862267
1660  2501.2261125070077
1661  2682.850478560836
1662  2828.7504988776313
1663  2985.531616634793
1664  psnr per frame: 14.131624
1665  16.74771
1666  15.581377
1667  14.919402
1668  14.417979
1669  13.944017
1670  13.573251
1671  13.271468
1672  13.069276
1673  12.951443
1674  12.840321
1675  fmae per frame: 3532.1594
1676  2299.23
1677  2737.758
1678  3033.181
```

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1679  3270.1506
1680  3517.9802
1681  3717.18
1682  3947.5225
1683  4118.472
1684  4261.2188
1685  4418.9023
1686  ssim per frame: 0.6938066
1687  0.7521248
1688  0.7214713
1689  0.70571256
1690  0.69581795
1691  0.6890145
1692  0.6829236
1693  0.6776368
1694  0.6743847
1695  0.6707207
1696  0.66825944
1697  sharpness per frame: 213.76343
1698  219.41203
1699  214.8287
1700  212.50462
1701  209.56482
1702  208.42592
1703  211.99538
1704  214.09723
1705  214.68518
1706  216.26389
1707  215.85648
1708  itr: 22100
1709  training loss: 9361.514
1710  itr: 22200
1711  training loss: 9467.159
1712  itr: 22300
1713  training loss: 7158.996
1714  itr: 22400
1715  training loss: 5297.1055
```

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1716  itr: 22500
1717  training loss: 8325.203
1718  itr: 22600
1719  training loss: 10675.053
1720  itr: 22700
1721  training loss: 8732.779
1722  itr: 22800
1723  training loss: 603.0511
1724  itr: 22900
1725  training loss: 8148.8345
1726  itr: 23000
1727  training loss: 8837.702
1728  test...
1729  mse per seq: 20600.75637902154
1730  981.4501875418204
1731  1275.7252143577293
1732  1545.9620826156051
1733  1796.668758533619
1734  2014.9444176002785
1735  2211.7551778157554
1736  2403.803956490976
1737  2600.6535927101418
1738  2783.036534909849
1739  2986.756456445765
1740  psnr per frame: 13.96686
1741  16.791363
1742  15.592622
1743  14.869588
1744  14.261487
1745  13.82101
1746  13.454726
1747  13.125342
1748  12.8319435
1749  12.5801935
1750  12.340314
1751  fmae per frame: 3956.8457
1752  2661.5403
```

```
1753  3096.231
1754  3429.5364
1755  3702.8801
1756  3936.8235
1757  4145.67
1758  4344.738
1759  4549.23
1760  4742.0063
1761  4959.8013
1762  ssim per frame: 0.6954485
1763  0.7621631
1764  0.7300632
1765  0.7124082
1766  0.7001048
1767  0.691634
1768  0.683806
1769  0.676879
1770  0.6716407
1771  0.6654233
1772  0.6603623
1773  sharpness per frame: 224.72176
1774  231.42592
1775  225.83333
1776  217.73611
1777  221.84723
1778  221.4537
1779  222.98611
1780  223.78241
1781  225.39352
1782  227.59259
1783  229.16667
1784  itr: 23100
1785  training loss: 8344.647
1786  itr: 23200
1787  training loss: 8455.173
1788  itr: 23300
1789  training loss: 9508.025
```

```
1790  itr: 23400
1791  training loss: 13728.654
1792  itr: 23500
1793  training loss: 6438.32
1794  itr: 23600
1795  training loss: 6909.015
1796  itr: 23700
1797  training loss: 10318.025
1798  itr: 23800
1799  training loss: 5443.1104
1800  itr: 23900
1801  training loss: 10239.792
1802  itr: 24000
1803  training loss: 6359.5977
1804  test...
1805  mse per seq: 17847.318978910094
1806  928.5913401003237
1807  1157.8559533578377
1808  1365.0835708335594
1809  1539.39563398008
1810  1743.5426025390625
1811  1915.7735961631493
1812  2093.8227071408874
1813  2240.1954902366356
1814  2367.161915531865
1815  2495.896169026693
1816  psnr per frame: 14.674738
1817  17.010904
1818  16.020487
1819  15.444842
1820  15.014146
1821  14.600098
1822  14.226244
1823  13.918902
1824  13.679635
1825  13.49336
1826  13.3387575
```

```
1827  fmae per frame: 3257.7622
1828  2186.7334
1829  2540.2568
1830  2815.427
1831  3011.3782
1832  3236.7712
1833  3426.9001
1834  3622.5767
1835  3778.872
1836  3911.8562
1837  4046.8516
1838  ssim per frame: 0.7006938
1839  0.7619094
1840  0.73439455
1841  0.71800494
1842  0.7074445
1843  0.6982156
1844  0.6895707
1845  0.68193084
1846  0.67669034
1847  0.6709765
1848  0.6678006
1849  sharpness per frame: 233.29585
1850  237.00926
1851  234.14352
1852  230.44908
1853  231.10648
1854  231.47685
1855  232.4213
1856  233.18982
1857  233.63426
1858  234.97223
1859  234.55556
1860  itr: 24100
1861  training loss: 11504.255
1862  itr: 24200
1863  training loss: 7499.852
```

```
1864  itr: 24300
1865  training loss: 12478.688
1866  itr: 24400
1867  training loss: 8623.342
1868  itr: 24500
1869  training loss: 5093.4497
1870  itr: 24600
1871  training loss: 10099.793
1872  itr: 24700
1873  training loss: 7974.7725
1874  itr: 24800
1875  training loss: 7856.486
1876  itr: 24900
1877  training loss: 7993.18
1878  itr: 25000
1879  training loss: 4668.2935
1880  test...
1881  mse per seq: 17129.143354062682
1882  910.3693659747088
1883  1117.7298212404605
1884  1301.6386923613372
1885  1463.7815290380406
1886  1655.5887593869809
1887  1825.9653198807327
1888  1996.6193874500416
1889  2145.944887090612
1890  2281.8914120992026
1891  2429.6141795405633
1892  psnr per frame: 14.835788
1893  17.079851
1894  16.152178
1895  15.621046
1896  15.206801
1897  14.764971
1898  14.384228
1899  14.100788
1900  13.867057
```

```
1901  13.67661
1902  13.504356
1903  fmae per frame: 3149.468
1904  2152.0916
1905  2469.586
1906  2711.703
1907  2892.4937
1908  3113.7288
1909  3302.3926
1910  3489.1582
1911  3644.4949
1912  3784.3271
1913  3934.7021
1914  ssim per frame: 0.7089897
1915  0.7657822
1916  0.7406586
1917  0.7256335
1918  0.71611255
1919  0.7065946
1920  0.698067
1921  0.69111174
1922  0.6863703
1923  0.68111426
1924  0.67845184
1925  sharpness per frame: 232.83842
1926  237.74074
1927  233.20833
1928  230.4537
1929  232.22685
1930  232.43056
1931  232.50462
1932  233.53703
1933  232.19444
1934  231.98148
1935  232.10648
1936  saved to checkpoints/radar_predrnn_pp
1937  itr: 25100
```

```
1938  training loss: 11523.459
1939  itr: 25200
1940  training loss: 9205.012
1941  itr: 25300
1942  training loss: 9729.919
1943  itr: 25400
1944  training loss: 11200.232
1945  itr: 25500
1946  training loss: 8304.705
1947  itr: 25600
1948  training loss: 6578.2603
1949  itr: 25700
1950  training loss: 2889.3345
1951  itr: 25800
1952  training loss: 11299.491
1953  itr: 25900
1954  training loss: 7891.6426
1955  itr: 26000
1956  training loss: 2909.0955
1957  test...
1958  mse per seq: 20330.171537752503
1959  941.5163007665564
1960  1211.0230527807164
1961  1467.5320427506058
1962  1732.0913730197483
1963  1977.526268005371
1964  2187.968608997486
1965  2421.804403093126
1966  2620.85721093637
1967  2793.0133910002533
1968  2976.8388864022713
1969  psnr per frame: 14.354139
1970  16.958115
1971  15.867898
1972  15.211085
1973  14.6507015
1974  14.194502
```

1975	13.831728
1976	13.506234
1977	13.272888
1978	13.105364
1979	12.942883
1980	fmae per frame: 3773.9673
1981	2599.7295
1982	2932.6128
1983	3211.3372
1984	3480.6138
1985	3727.5735
1986	3939.6318
1987	4180.1255
1988	4380.3403
1989	4552.6914
1990	4735.0137
1991	ssim per frame: 0.7182856
1992	0.77124286
1993	0.7468759
1994	0.7331395
1995	0.7226326
1996	0.71524197
1997	0.7084113
1998	0.70225215
1999	0.6982654
2000	0.6936372
2001	0.6911573
2002	sharpness per frame: 235.775
2003	238.88426
2004	235.69444
2005	235.32408
2006	234.60648
2007	235.45833
2008	237.50462
2009	236.34723
2010	236.38426
2011	234.57408

```
2012  232.97223
2013  itr: 26100
2014  training loss: 9286.733
2015  itr: 26200
2016  training loss: 13083.392
2017  itr: 26300
2018  training loss: 9206.384
2019  itr: 26400
2020  training loss: 10145.535
2021  itr: 26500
2022  training loss: 8033.214
2023  itr: 26600
2024  training loss: 8995.548
2025  itr: 26700
2026  training loss: 7605.392
2027  itr: 26800
2028  training loss: 11369.768
2029  itr: 26900
2030  training loss: 3344.6177
2031  itr: 27000
2032  training loss: 5732.0103
2033  test...
2034  mse per seq: 21217.19592631305
2035  935.3963991800944
2036  1193.6511428267868
2037  1473.8693340442799
2038  1717.8361153779206
2039  2019.6261236402725
2040  2287.365793440077
2041  2560.2129321628145
2042  2803.5181424176253
2043  3012.856767159921
2044  3212.863176063255
2045  psnr per frame: 14.351006
2046  16.971067
2047  15.941478
2048  15.251151
```

2049 14.785228
2050 14.264309
2051 13.82256
2052 13.470521
2053 13.175478
2054 12.988647
2055 12.839617
2056 fmae per frame: 3457.4524
2057 2218.344
2058 2546.965
2059 2832.4678
2060 3056.5957
2061 3359.3848
2062 3628.4932
2063 3902.442
2064 4141.701
2065 4347.207
2066 4540.92
2067 ssim per frame: 0.711547
2068 0.7642923
2069 0.74023557
2070 0.7270717
2071 0.7189827
2072 0.71041983
2073 0.7018982
2074 0.6949486
2075 0.6902871
2076 0.68516684
2077 0.6821673
2078 sharpness per frame: 212.20927
2079 221.91667
2080 215.03241
2081 212.50462
2082 211.63889
2083 211.91667
2084 211.03703
2085 211.33333

```
2086  209.89815
2087  209.31482
2088  207.5
2089  itr: 27100
2090  training loss: 8204.669
2091  itr: 27200
2092  training loss: 12017.206
2093  itr: 27300
2094  training loss: 5135.9062
2095  itr: 27400
2096  training loss: 5457.1733
2097  itr: 27500
2098  training loss: 7890.9883
2099  itr: 27600
2100  training loss: 8945.037
2101  itr: 27700
2102  training loss: 7385.8145
2103  itr: 27800
2104  training loss: 6170.831
2105  itr: 27900
2106  training loss: 11553.535
2107  itr: 28000
2108  training loss: 6836.1797
2109  test...
2110  mse per seq: 15642.167536841498
2111  894.1236336319535
2112  1092.5046118277091
2113  1262.7796140600133
2114  1386.0518952828866
2115  1522.116077988236
2116  1656.7800955595794
2117  1773.1180785850243
2118  1895.9762893959328
2119  2013.5835579766167
2120  2145.1336825335466
2121  psnr per frame: 15.081499
2122  17.167725
```

2123	16.245775
2124	15.72538
2125	15.391609
2126	15.040596
2127	14.700591
2128	14.441131
2129	14.209065
2130	14.028349
2131	13.864763
2132	fmae per frame: 2952.33
2133	2139.356
2134	2433.8506
2135	2648.8162
2136	2781.9224
2137	2934.1255
2138	3078.1143
2139	3196.6343
2140	3315.3613
2141	3431.1624
2142	3563.9597
2143	ssim per frame: 0.71425074
2144	0.76315486
2145	0.73967445
2146	0.72630805
2147	0.7185109
2148	0.7118365
2149	0.70465475
2150	0.6996029
2151	0.6964467
2152	0.69230694
2153	0.69001174
2154	sharpness per frame: 230.68474
2155	236.58333
2156	232.56944
2157	228.31482
2158	226.88889
2159	230.52315

```
2160  230.27315
2161  231.44908
2162  231.13889
2163  229.43982
2164  229.66667
2165  itr: 28100
2166  training loss: 3704.0896
2167  itr: 28200
2168  training loss: 7261.778
2169  itr: 28300
2170  training loss: 5835.049
2171  itr: 28400
2172  training loss: 9416.394
2173  itr: 28500
2174  training loss: 6828.1367
2175  itr: 28600
2176  training loss: 3604.0874
2177  itr: 28700
2178  training loss: 6047.284
2179  itr: 28800
2180  training loss: 4627.8154
2181  itr: 28900
2182  training loss: 8682.439
2183  itr: 29000
2184  training loss: 6033.7524
2185  test...
2186  mse per seq: 15548.532795093677
2187  872.2962933293095
2188  1056.059677971734
2189  1225.6354799623844
2190  1365.186432732476
2191  1515.7835275155526
2192  1664.485034942627
2193  1785.4867436444317
2194  1909.511501877396
2195  2018.5770273561832
2196  2135.511075761583
```

```
2197  psnr per frame: 15.182187
2198  17.261925
2199  16.393211
2200  15.860569
2201  15.500779
2202  15.120479
2203  14.745925
2204  14.513869
2205  14.289099
2206  14.138036
2207  13.997988
2208  fmae per frame: 2869.4243
2209  2078.2283
2210  2346.8635
2211  2547.439
2212  2690.9495
2213  2844.1116
2214  3000.8252
2215  3123.51
2216  3245.2197
2217  3351.2896
2218  3465.8057
2219  ssim per frame: 0.7202257
2220  0.7655358
2221  0.7440845
2222  0.7318324
2223  0.7236684
2224  0.7178338
2225  0.7103688
2226  0.70614994
2227  0.70363873
2228  0.7001889
2229  0.6989563
2230  sharpness per frame: 226.21342
2231  237.94444
2232  232.19444
2233  227.48148
```

```
2234  227.22685
2235  226.12038
2236  223.38889
2237  223.87962
2238  222.85648
2239  220.625
2240  220.41667
2241  itr: 29100
2242  training loss: 10932.014
2243  itr: 29200
2244  training loss: 7222.5615
2245  itr: 29300
2246  training loss: 8125.7593
2247  itr: 29400
2248  training loss: 9278.584
2249  itr: 29500
2250  training loss: 6067.6914
2251  itr: 29600
2252  training loss: 6556.7153
2253  itr: 29700
2254  training loss: 11161.238
2255  itr: 29800
2256  training loss: 11816.845
2257  itr: 29900
2258  training loss: 7511.658
2259  itr: 30000
2260  training loss: 3417.768
2261  test...
2262  mse per seq: 16457.05726778949
2263  899.735715230306
2264  1098.6649643226906
2265  1275.3373581215187
2266  1416.9725557963054
2267  1584.445167400219
2268  1761.7042585302281
2269  1903.7007700602214
2270  2040.3339852227105
```

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2271  2167.975077593768
2272  2308.1874155115197
2273  psnr per frame: 14.893417
2274  17.13436
2275  16.196556
2276  15.632173
2277  15.248531
2278  14.830764
2279  14.414181
2280  14.147786
2281  13.933343
2282  13.777773
2283  13.6187
2284  fmae per frame: 3358.02
2285  2294.0037
2286  2639.633
2287  2910.102
2288  3102.0752
2289  3316.2573
2290  3537.8904
2291  3714.2278
2292  3872.6768
2293  4017.6199
2294  4175.714
2295  ssim per frame: 0.69079673
2296  0.7557438
2297  0.7286247
2298  0.71107334
2299  0.6993862
2300  0.68879193
2301  0.6776696
2302  0.669649
2303  0.664334
2304  0.6583104
2305  0.6543844
2306  sharpness per frame: 226.36018
2307  239.5787
```

```
2308  232.84723
2309  228.10648
2310  226.70833
2311  224.08797
2312  224.66203
2313  223.94908
2314  223.58333
2315  219.44444
2316  220.63426
2317  saved to checkpoints/radar_predrnn_pp
2318  itr: 30100
2319  training loss: 5495.2524
2320  itr: 30200
2321  training loss: 7238.416
2322  itr: 30300
2323  training loss: 7405.3394
2324  itr: 30400
2325  training loss: 6667.681
2326  itr: 30500
2327  training loss: 9420.183
2328  itr: 30600
2329  training loss: 3717.1077
2330  itr: 30700
2331  training loss: 9059.454
2332  itr: 30800
2333  training loss: 7449.289
2334  itr: 30900
2335  training loss: 7229.834
2336  itr: 31000
2337  training loss: 14688.834
2338  test...
2339  mse per seq: 33966.28066691646
2340  1070.9929764359085
2341  1576.100323005959
2342  2124.103797347457
2343  2667.5169833147966
2344  3275.551268118399
```

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2345  3787.3427858705872
2346  4334.005095163981
2347  4743.135479679814
2348  5056.862198864972
2349  5330.669759114583
2350  psnr per frame: 12.696864
2351  16.407316
2352  14.875879
2353  13.831109
2354  13.080048
2355  12.352
2356  11.811576
2357  11.396404
2358  11.148021
2359  11.056416
2360  11.00987
2361  fmae per frame: 4951.916
2362  2732.05
2363  3237.1802
2364  3752.8857
2365  4250.741
2366  4830.4736
2367  5316.152
2368  5845.215
2369  6234.7065
2370  6530.3223
2371  6789.4336
2372  ssim per frame: 0.68756753
2373  0.7477343
2374  0.72138965
2375  0.70491487
2376  0.69368815
2377  0.6822559
2378  0.6747653
2379  0.66675156
2380  0.6631709
2381  0.6606832
```

```
2382  0.66032183
2383  sharpness per frame: 154.90694
2384  195.31018
2385  183.02777
2386  175.99074
2387  169.33333
2388  162.05092
2389  153.48148
2390  142.97223
2391  130.80092
2392  121.47222
2393  114.62963
2394  itr: 31100
2395  training loss: 10120.7705
2396  itr: 31200
2397  training loss: 3806.0
2398  itr: 31300
2399  training loss: 8955.897
2400  itr: 31400
2401  training loss: 9804.745
2402  itr: 31500
2403  training loss: 2828.5852
2404  itr: 31600
2405  training loss: 10106.065
2406  itr: 31700
2407  training loss: 6609.4453
2408  itr: 31800
2409  training loss: 8935.927
2410  itr: 31900
2411  training loss: 2222.4685
2412  itr: 32000
2413  training loss: 7570.9644
2414  test...
2415  mse per seq: 14783.158111572266
2416  847.2315610249838
2417  1009.6622893721969
2418  1153.4648718657318
```

```
2419  1269.8332679183395
2420  1430.7328147888184
2421  1565.1505939342358
2422  1706.3156515050816
2423  1820.9319667109737
2424  1922.2142050001357
2425  2057.6208894517686
2426  psnr per frame: 15.456268
2427  17.368761
2428  16.5882
2429  16.137154
2430  15.824845
2431  15.434216
2432  15.072084
2433  14.802067
2434  14.598475
2435  14.463383
2436  14.273493
2437  fmae per frame: 2900.0466
2438  2153.8582
2439  2391.6357
2440  2566.0908
2441  2692.6404
2442  2865.7896
2443  3013.3142
2444  3162.452
2445  3278.1265
2446  3373.0767
2447  3503.484
2448  ssim per frame: 0.7221473
2449  0.76882833
2450  0.7485659
2451  0.7368152
2452  0.7288439
2453  0.7212661
2454  0.7124234
2455  0.70618486
```

```
2456  0.70290744
2457  0.6990182
2458  0.69661933
2459  sharpness per frame: 232.17317
2460  238.5
2461  236.76852
2462  235.35185
2463  232.16667
2464  232.47685
2465  231.94444
2466  231.46297
2467  229.24074
2468  227.54167
2469  226.27777
2470  itr: 32100
2471  training loss: 5818.466
2472  itr: 32200
2473  training loss: 9713.3125
2474  itr: 32300
2475  training loss: 5406.4688
2476  itr: 32400
2477  training loss: 2686.7495
2478  itr: 32500
2479  training loss: 3561.26
2480  itr: 32600
2481  training loss: 7075.465
2482  itr: 32700
2483  training loss: 7933.3994
2484  itr: 32800
2485  training loss: 10341.457
2486  itr: 32900
2487  training loss: 7134.7646
2488  itr: 33000
2489  training loss: 5005.2065
2490  test...
2491  mse per seq: 13208.581715124625
2492  834.3110690646702
```

```
2493  974.2397833930122
2494  1096.8012514467594
2495  1189.784331286395
2496  1294.7348839088722
2497  1405.1565469812465
2498  1479.2374606662327
2499  1560.6949720029477
2500  1634.514453181514
2501  1739.1069631929752
2502  psnr per frame: 15.75253
2503  17.455278
2504  16.735695
2505  16.31028
2506  16.021807
2507  15.722291
2508  15.399971
2509  15.213014
2510  15.023893
2511  14.900931
2512  14.742144
2513  fmae per frame: 2636.7974
2514  1991.001
2515  2215.5615
2516  2390.3096
2517  2504.9482
2518  2631.2278
2519  2758.878
2520  2843.1343
2521  2926.807
2522  2999.9714
2523  3106.1345
2524  ssim per frame: 0.7302638
2525  0.77377135
2526  0.7542958
2527  0.7422665
2528  0.7345663
2529  0.7285775
```

```
2530  0.7205922
2531  0.7165111
2532  0.71382064
2533  0.7101113
2534  0.70812535
2535  sharpness per frame: 233.47546
2536  239.73148
2537  239.22685
2538  235.70833
2539  235.10185
2540  232.97685
2541  232.33333
2542  230.87962
2543  230.68518
2544  229.37038
2545  228.74074
2546  itr: 33100
2547  training loss: 3464.4927
2548  itr: 33200
2549  training loss: 9057.967
2550  itr: 33300
2551  training loss: 8474.031
2552  itr: 33400
2553  training loss: 6262.6484
2554  itr: 33500
2555  training loss: 6033.3286
2556  itr: 33600
2557  training loss: 9711.25
2558  itr: 33700
2559  training loss: 6037.428
2560  itr: 33800
2561  training loss: 10556.181
2562  itr: 33900
2563  training loss: 8858.64
2564  itr: 34000
2565  training loss: 8537.353
2566  test...
```

```
2567  mse per seq: 15048.37601075349
2568  862.1680376971209
2569  1014.253103044298
2570  1158.48101594713
2571  1260.33835389879
2572  1418.555441538493
2573  1576.6912237096715
2574  1721.5038228918004
2575  1871.5457139191803
2576  2006.0751989859123
2577  2158.7640991210938
2578  psnr per frame: 15.277533
2579  17.267107
2580  16.506756
2581  16.019539
2582  15.710175
2583  15.306996
2584  14.904549
2585  14.615174
2586  14.337356
2587  14.139382
2588  13.968293
2589  fmae per frame: 3351.5833
2590  2569.3884
2591  2798.915
2592  2989.2437
2593  3109.2607
2594  3285.2021
2595  3453.961
2596  3605.338
2597  3757.7808
2598  3894.647
2599  4052.0974
2600  ssim per frame: 0.7138131
2601  0.7606959
2602  0.741261
2603  0.7284588
```

```
2604  0.7206228
2605  0.7127855
2606  0.7041154
2607  0.6987739
2608  0.6946229
2609  0.68970823
2610  0.68708634
2611  sharpness per frame: 227.57036
2612  235.36574
2613  233.99538
2614  229.58333
2615  229.06482
2616  228.89815
2617  226.16203
2618  223.2963
2619  223.37038
2620  224.50926
2621  221.45833
2622  itr: 34100
2623  training loss: 5618.965
2624  itr: 34200
2625  training loss: 9036.583
2626  itr: 34300
2627  training loss: 9749.382
2628  itr: 34400
2629  training loss: 6693.2134
2630  itr: 34500
2631  training loss: 8260.56
2632  itr: 34600
2633  training loss: 8842.307
2634  itr: 34700
2635  training loss: 10238.896
2636  itr: 34800
2637  training loss: 8369.008
2638  itr: 34900
2639  training loss: 7598.616
2640  itr: 35000
```

```
2641 training loss: 3409.2983
2642 test...
2643 mse per seq: 13720.34928145232
2644 836.3399567780672
2645 977.85658843429
2646 1100.7888563650627
2647 1192.2854420697247
2648 1316.7786297268337
2649 1440.2868546379937
2650 1547.1695846275047
2651 1654.687787939001
2652 1759.1750423290111
2653 1894.9805385448315
2654 psnr per frame: 15.580095
2655 17.416319
2656 16.666985
2657 16.233963
2658 15.936305
2659 15.587977
2660 15.216573
2661 14.97423
2662 14.752588
2663 14.596638
2664 14.419379
2665 fmae per frame: 2976.1287
2666 2286.9849
2667 2508.2913
2668 2681.0063
2669 2796.1155
2670 2936.3162
2671 3076.156
2672 3193.4204
2673 3308.0327
2674 3418.4316
2675 3556.5315
2676 ssim per frame: 0.7246189
2677 0.77129626
```

```
2678  0.75157785
2679  0.7391362
2680  0.7305301
2681  0.7237481
2682  0.7151447
2683  0.7098231
2684  0.7055263
2685  0.7008181
2686  0.6985885
2687  sharpness per frame: 222.26944
2688  236.13426
2689  231.5
2690  226.43982
2691  223.36111
2692  220.87038
2693  220.18518
2694  220.37962
2695  217.48611
2696  213.73148
2697  212.60648
2698  saved to checkpoints/radar_predrnn_pp
2699  itr: 35100
2700  training loss: 4264.928
2701  itr: 35200
2702  training loss: 3635.6736
2703  itr: 35300
2704  training loss: 6873.545
2705  itr: 35400
2706  training loss: 7444.7466
2707  itr: 35500
2708  training loss: 9818.968
2709  itr: 35600
2710  training loss: 3885.1934
2711  itr: 35700
2712  training loss: 5064.5737
2713  itr: 35800
2714  training loss: 10697.07
```

```
2715  itr: 35900
2716  training loss: 7084.79
2717  itr: 36000
2718  training loss: 6591.1436
2719  test...
2720  mse per seq: 12397.11435982033
2721  817.1335507145634
2722  937.6457037749113
2723  1041.8611177515102
2724  1115.3540378146702
2725  1214.2269619129322
2726  1308.5795012580024
2727  1383.7016523855705
2728  1449.3597325925473
2729  1516.3941325434932
2730  1612.85796907213
2731  psnr per frame: 15.92497
2732  17.54034
2733  16.867418
2734  16.466259
2735  16.200554
2736  15.898287
2737  15.591333
2738  15.404949
2739  15.240281
2740  15.108417
2741  14.931868
2742  fmae per frame: 2578.479
2743  1975.4305
2744  2189.4124
2745  2360.7148
2746  2462.9792
2747  2586.0186
2748  2697.141
2749  2777.728
2750  2840.9426
2751  2901.5222
```

```
2752  2992.9019
2753  ssim per frame: 0.73114663
2754  0.77355653
2755  0.7548809
2756  0.7424786
2757  0.7344368
2758  0.728064
2759  0.72119635
2760  0.7175382
2761  0.7157643
2762  0.71235365
2763  0.711197
2764  sharpness per frame: 235.61853
2765  242.68518
2766  239.4213
2767  235.94444
2768  236.78241
2769  235.78703
2770  234.60648
2771  233.69444
2772  233.74538
2773  231.83797
2774  231.68056
2775  itr: 36100
2776  training loss: 6792.5854
2777  itr: 36200
2778  training loss: 7513.9067
2779  itr: 36300
2780  training loss: 5217.8813
2781  itr: 36400
2782  training loss: 5034.076
2783  itr: 36500
2784  training loss: 13209.593
2785  itr: 36600
2786  training loss: 3563.9639
2787  itr: 36700
2788  training loss: 9691.662
```

```
2789  itr: 36800
2790  training loss: 2004.0757
2791  itr: 36900
2792  training loss: 8297.305
2793  itr: 37000
2794  training loss: 2595.0095
2795  test...
2796  mse per seq: 12673.567346219663
2797  828.6380983988444
2798  955.9587010984068
2799  1061.7709158438224
2800  1145.9190856085884
2801  1246.2827573705601
2802  1344.0587474681713
2803  1407.985273996989
2804  1476.1590697677048
2805  1557.8967003998932
2806  1648.8979962666829
2807  psnr per frame: 15.815244
2808  17.485723
2809  16.78774
2810  16.397165
2811  16.089554
2812  15.785146
2813  15.475585
2814  15.300309
2815  15.122334
2816  14.945263
2817  14.763625
2818  fmae per frame: 2602.9817
2819  1991.0858
2820  2210.3708
2821  2371.7144
2822  2479.2903
2823  2601.6135
2824  2720.163
2825  2792.0208
```

```
2826  2867.236
2827  2952.0374
2828  3044.2842
2829  ssim per frame: 0.7338588
2830  0.7774306
2831  0.75796205
2832  0.74610776
2833  0.73803526
2834  0.7317624
2835  0.7246266
2836  0.7205108
2837  0.71765566
2838  0.71340454
2839  0.71109253
2840  sharpness per frame: 238.25095
2841  243.90277
2842  242.0
2843  239.99538
2844  237.92592
2845  238.81018
2846  236.25926
2847  237.49074
2848  236.27315
2849  235.30092
2850  234.55092
2851  itr: 37100
2852  training loss: 3424.6462
2853  itr: 37200
2854  training loss: 6479.925
2855  itr: 37300
2856  training loss: 1054.299
2857  itr: 37400
2858  training loss: 11080.401
2859  itr: 37500
2860  training loss: 5727.0303
2861  itr: 37600
2862  training loss: 6253.158
```

```
2863  itr: 37700
2864  training loss: 4389.5596
2865  itr: 37800
2866  training loss: 7903.778
2867  itr: 37900
2868  training loss: 7797.4546
2869  itr: 38000
2870  training loss: 8201.942
2871  test...
2872  mse per seq: 12524.915420037729
2873  814.1487292536983
2874  946.8502488312898
2875  1059.3391513118038
2876  1127.617763378002
2877  1227.608472329599
2878  1323.6138516178837
2879  1399.035479227702
2880  1462.4873648749458
2881  1534.3558702822086
2882  1629.8584889305962
2883  psnr per frame: 15.968923
2884  17.55686
2885  16.866123
2886  16.47878
2887  16.238663
2888  15.948718
2889  15.636356
2890  15.457573
2891  15.305408
2892  15.177447
2893  15.023296
2894  fmae per frame: 2459.2485
2895  1922.7112
2896  2110.912
2897  2255.759
2898  2337.3062
2899  2448.5464
```

```
2900  2558.458
2901  2637.6482
2902  2699.7458
2903  2765.1584
2904  2856.2427
2905  ssim per frame: 0.74643207
2906  0.781018
2907  0.76528865
2908  0.75605595
2909  0.7500243
2910  0.744955
2911  0.73817855
2912  0.7350296
2913  0.73340935
2914  0.73073053
2915  0.7296309
2916  sharpness per frame: 233.15694
2917  241.81018
2918  237.94908
2919  236.05556
2920  232.625
2921  232.84723
2922  231.87962
2923  231.53703
2924  230.40741
2925  228.25
2926  228.20833
2927  itr: 38100
2928  training loss: 7005.2627
2929  itr: 38200
2930  training loss: 2924.9487
2931  itr: 38300
2932  training loss: 6676.8516
2933  itr: 38400
2934  training loss: 7116.4736
2935  itr: 38500
2936  training loss: 6162.5103
```

```
2937 itr: 38600
2938 training loss: 10676.795
2939 itr: 38700
2940 training loss: 2543.67
2941 itr: 38800
2942 training loss: 5991.381
2943 itr: 38900
2944 training loss: 4773.154
2945 itr: 39000
2946 training loss: 2181.0796
2947 test...
2948 mse per seq: 12904.5412012736
2949 814.5785875673647
2950 949.6584964328342
2951 1066.7436075563785
2952 1146.6942657188133
2953 1261.9555583530002
2954 1367.5554853368687
2955 1455.4077487521702
2956 1530.6109144422744
2957 1609.535627718325
2958 1701.8009093955711
2959 psnr per frame: 15.853157
2960 17.548647
2961 16.852959
2962 16.425476
2963 16.145239
2964 15.819045
2965 15.496633
2966 15.291635
2967 15.135906
2968 14.985204
2969 14.8308325
2970 fmae per frame: 2603.1594
2971 2022.5798
2972 2223.5217
2973 2378.4348
```

```
2974  2467.7795
2975  2591.4963
2976  2705.5974
2977  2796.1157
2978  2868.3198
2979  2944.403
2980  3033.3464
2981  ssim per frame: 0.7426323
2982  0.7783099
2983  0.76181895
2984  0.7522468
2985  0.7463341
2986  0.741183
2987  0.73445594
2988  0.7312172
2989  0.72960806
2990  0.7261598
2991  0.72498935
2992  sharpness per frame: 230.819
2993  238.22685
2994  234.20833
2995  231.875
2996  231.05092
2997  229.23148
2998  230.76389
2999  229.77777
3000  228.875
3001  227.49074
3002  226.68982
3003  itr: 39100
3004  training loss: 3758.6648
3005  itr: 39200
3006  training loss: 9511.559
3007  itr: 39300
3008  training loss: 9000.727
3009  itr: 39400
3010  training loss: 6102.291
```

```
3011  itr: 39500
3012  training loss: 5876.1406
3013  itr: 39600
3014  training loss: 11540.758
3015  itr: 39700
3016  training loss: 6569.537
3017  itr: 39800
3018  training loss: 4737.087
3019  itr: 39900
3020  training loss: 3433.4084
3021  itr: 40000
3022  training loss: 1377.0564
3023  test...
3024  mse per seq: 11706.848612961945
3025  803.396430545383
3026  917.2033160174334
3027  1008.0750920331037
3028  1063.726293351915
3029  1144.4676274900082
3030  1235.235226949056
3031  1284.1440359044957
3032  1343.3129949216489
3033  1410.8981571903935
3034  1496.389438558508
3035  psnr per frame: 16.148548
3036  17.602774
3037  16.965937
3038  16.62842
3039  16.405502
3040  16.136818
3041  15.827235
3042  15.675059
3043  15.542498
3044  15.425053
3045  15.27619
3046  fmae per frame: 2424.4727
3047  1929.789
```

```
3048  2110.895
3049  2252.475
3050  2329.0415
3051  2425.7136
3052  2531.972
3053  2579.7703
3054  2628.87
3055  2689.719
3056  2766.48
3057  ssim per frame: 0.7437955
3058  0.7780155
3059  0.7624893
3060  0.7523818
3061  0.74611014
3062  0.74151605
3063  0.73490065
3064  0.7325562
3065  0.7318774
3066  0.7291249
3067  0.72898287
3068  sharpness per frame: 234.39397
3069  242.4537
3070  237.55556
3071  237.42592
3072  236.06018
3073  233.85185
3074  232.25926
3075  233.02777
3076  231.94444
3077  230.28703
3078  229.07408
3079  saved to checkpoints/radar_predrnn_pp
3080  itr: 40100
3081  training loss: 5435.438
3082  itr: 40200
3083  training loss: 8730.577
3084  itr: 40300
```

```
3085 training loss: 4954.0723
3086 itr: 40400
3087 training loss: 8909.751
3088 ^CTraceback (most recent call last):
3089   File "/home/sunfengzhen/pycharm/
     interval_pred10_goontrain_resultpd00_predrnnpp/
     interval_pred10_goontrain_result00.py", line 368, in <module>
3090     tf.app.run()
3091   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/platform/app.py", line 125, in run
3092     _sys.exit(main(argv))
3093   File "/home/sunfengzhen/pycharm/
     interval_pred10_goontrain_resultpd00_predrnnpp/
     interval_pred10_goontrain_result00.py", line 246, in main
3094     cost = model.train(ims, lr, mask_true) #elesun not train
     only test
3095   File "/home/sunfengzhen/pycharm/
     interval_pred10_goontrain_resultpd00_predrnnpp/
     interval_pred10_goontrain_result00.py", line 173, in train
3096     loss, _ = self.sess.run((self.loss_train, self.train_op),
     feed_dict)
3097   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/client/session.py", line 929, in run
3098     run_metadata_ptr)
3099   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/client/session.py", line 1152, in _run
3100     feed_dict_tensor, options, run_metadata)
3101   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/client/session.py", line 1328, in _do_run
3102     run_metadata)
3103   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/client/session.py", line 1334, in _do_call
3104     return fn(*args)
3105   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
     python/client/session.py", line 1319, in _run_fn
3106     options, feed_dict, fetch_list, target_list, run_metadata)
3107   File "/usr/local/lib/python2.7/dist-packages/tensorflow/
```

```
3107  python/client/session.py", line 1407, in _call_tf_sessionrun
3108      run_metadata)
3109  KeyboardInterrupt
3110
3111  Process finished with exit code -1
3112
```