

```
$ python3
train.py --data ./h5_p1 --mode fusion --workers 0
--batch 64 --epochs 50 --no_amp --save_dir checkpoint_p1_fusion && python3 train.py
--data ./h5_p1 --mode event --workers 0 --batch 64 --epochs
50 --no_amp --save_dir checkpoint_p1_event && python3 train.py --data ./h5_p1 --mode rgb
--workers 0 --batch 64 --epochs 50 --no_amp --save_dir c
heckpoint_p1_rgb
Start training | mode=fusion | files=39 | batches(train)=103 | device=cuda
train: 0%|                                     | 0/103 [00:13<?, ?it/s,
loss=0.1923, mae=train: 1%|█                 | 1/103
[00:13<23:47, 14.00s/it, loss=0.1923, mae=train: 1%|█
| 1/103 [00:23<23:47, 14.00s/it, loss=0.0546, mae=train: 2%|██
| 2/103 [00:23<18:38, 11.07s/it, loss=0.0546, mae=train: 2%|██
| 2/103 [00:30<18:38, 11.07s/it, loss=0.0527, mae=train: 3%|███
| 3/103 [00:30<15:30, 9.30s/it, loss=0.0527, mae=train: 3%|███
| 3/103 [00:37<15:30, 9.30s/it, loss=0.0497, mae=train: 4%|████
| 4/103 [00:37<14:02, 8.51s/it, loss=0.0497, mae=train: 4%|████
| 4/103 [00:43<14:02, 8.51s/it, loss=0.0344, mae=train: 5%|█████
| 5/103 [00:43<12:33, 7.69s/it, loss=0.0344, mae=train: 5%|█████
| 5/103 [00:50<12:33, 7.69s/it, loss=0.0303, mae=train: 6%|██████
| 6/103 [00:50<12:08, 7.52s/it, loss=0.0303, mae=train: 6%|██████
| 6/103 [00:57<12:08, 7.52s/it, loss=0.0360, mae=train: 7%|███████
| 7/103 [00:57<11:34, 7.24s/it, loss=0.0360, mae=train: 7%|███████
| 7/103 [01:04<11:34, 7.24s/it, loss=0.0327, mae=train: 8%|████████
| 8/103 [01:04<11:26, 7.22s/it, loss=0.0327, mae=train: 8%|████████
| 8/103 [01:10<11:26, 7.22s/it, loss=0.0247, mae=train: 9%|█████████
| 9/103 [01:10<10:21, 6.61s/it, loss=0.0247, mae=train: 9%|█████████
| 9/103 [01:16<10:21, 6.61s/it, loss=0.0230, mae=train: 10%|██████████
| 10/103 [01:16<10:05, 6.51s/it, loss=0.0230, mae=train: 10%|██████████
| 10/103 [01:23<10:05, 6.51s/it, loss=0.0273, mae=train: 11%|██████████
| 11/103 [01:23<10:10, 6.63s/it, loss=0.0273, mae=train: 11%|██████████
| 11/103 [01:30<10:10, 6.63s/it, loss=0.0269, mae=train: 12%|██████████
| 12/103 [01:30<10:28, 6.91s/it, loss=0.0269, mae=train: 12%|██████████
| 12/103 [01:37<10:28, 6.91s/it, loss=0.0182, mae=train: 13%|██████████
| 13/103 [01:37<10:17, 6.86s/it, loss=0.0182, mae=train: 13%|██████████
| 13/103 [01:44<10:17, 6.86s/it, loss=0.0215, mae=train: 14%|██████████
| 14/103 [01:44<10:21, 6.98s/it, loss=0.0215, mae=train: 14%|██████████
| 14/103 [01:51<10:21, 6.98s/it, loss=0.0215, mae=train: 15%|██████████
| 15/103 [01:51<10:16, 7.01s/it, loss=0.0215, mae=train: 15%|██████████
| 15/103 [01:57<10:16, 7.01s/it, loss=0.0237, mae=train: 16%|██████████
| 16/103 [01:57<09:42, 6.69s/it, loss=0.0237, mae=train: 16%|██████████
| 16/103 [02:04<09:42, 6.69s/it, loss=0.0278, mae=train: 17%|██████████
| 17/103 [02:04<09:45, 6.81s/it, loss=0.0278, mae=train: 17%|██████████
| 17/103 [02:13<09:45, 6.81s/it, loss=0.0156, mae=train: 17%|██████████
| 18/103 [02:13<10:21, 7.31s/it, loss=0.0156, mae=train: 17%|██████████
| 18/103 [02:21<10:21, 7.31s/it, loss=0.0177, mae=train: 18%|██████████
| 19/103 [02:21<10:39, 7.61s/it, loss=0.0177, mae=train: 18%|██████████
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	25/103
[03:01<08:48, 6.78s/it, loss=0.0194, mae=train: 24%	
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	26/103
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	28/103
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28/103 [03:26<08:12, 6.57s/it, loss=0.0163, mae=train: 28%	
	29/103
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	31/103
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	32/103
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	33/103
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	34/103
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	34/103
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	35/103
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	35/103
[04:07<06:23, 5.64s/it, loss=0.0154, mae=train: 35%	
	36/103
[04:07<06:26, 5.78s/it, loss=0.0154, mae=train: 35%	

35% ██████████	36/103
[04:13<06:26, 5.78s/it, loss=0.0163, mae=train:	
36% ██████████	37/103
[04:13<06:20, 5.77s/it, loss=0.0163, mae=train:	
36% ██████████	37/103
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37% ██████████	38/103
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37% ██████████	38/103
[04:24<06:22, 5.89s/it, loss=0.0168, mae=train:	
38% ██████████	39/103
[04:24<06:04, 5.70s/it, loss=0.0168, mae=train:	
38% ██████████	39/103
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39% ██████████	40/103
[04:30<05:53, 5.62s/it, loss=0.0139, mae=train:	
39% ██████████	40/103
[04:35<05:53, 5.62s/it, loss=0.0130, mae=train:	
40% ██████████	41/103
[04:35<05:51, 5.66s/it, loss=0.0130, mae=train:	
40% ██████████	41/103
[04:41<05:51, 5.66s/it, loss=0.0094, mae=train:	
41% ██████████	42/103
[04:41<05:39, 5.56s/it, loss=0.0094, mae=train:	
41% ██████████	42/103
[04:46<05:39, 5.56s/it, loss=0.0169, mae=train:	
42% ██████████	43/103
[04:46<05:33, 5.56s/it, loss=0.0169, mae=train:	
42% ██████████	43/103
[04:52<05:33, 5.56s/it, loss=0.0167, mae=train:	
43% ██████████	44/103
[04:52<05:40, 5.77s/it, loss=0.0167, mae=train:	
43% ██████████	44/103
[04:58<05:40, 5.77s/it, loss=0.0157, mae=train:	
44% ██████████	45/103
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44% ██████████	45/103
[05:03<05:25, 5.62s/it, loss=0.0146, mae=train:	
45% ██████████	
46/103 [05:03<05:15, 5.54s/it, loss=0.0146, mae=train:	
45% ██████████	
46/103 [05:10<05:15, 5.54s/it, loss=0.0166, mae=train:	
46% ██████████	
47/103 [05:10<05:30, 5.90s/it, loss=0.0166, mae=train:	
46% ██████████	
47/103 [05:17<05:30, 5.90s/it, loss=0.0151, mae=train:	
47% ██████████	
48/103 [05:17<05:45, 6.29s/it, loss=0.0151, mae=train:	

[illegible]

[illegible]

70%	
72/103 [08:15<04:07, 7.99s/it, loss=0.0104, mae=train:	
71%	
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71%	
73/103 [08:23<03:51, 7.73s/it, loss=0.0145, mae=train:	
72%	
74/103 [08:23<03:45, 7.79s/it, loss=0.0145, mae=train:	
72%	
74/103 [08:30<03:45, 7.79s/it, loss=0.0115, mae=train:	
73%	
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75/103 [08:36<03:28, 7.43s/it, loss=0.0117, mae=train:	
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76/103 [08:36<03:13, 7.15s/it, loss=0.0117, mae=train:	
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78/103 [08:58<03:02, 7.31s/it, loss=0.0158, mae=train:	
77%	
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81/103 [09:21<02:37, 7.15s/it, loss=0.0177, mae=train:	
80%	
82/103 [09:21<02:38, 7.55s/it, loss=0.0177, mae=train:	
80%	
82/103 [09:28<02:38, 7.55s/it, loss=0.0115, mae=train:	
81%	
83/103 [09:28<02:30, 7.52s/it, loss=0.0115, mae=train:	
81%	
83/103 [09:36<02:30, 7.52s/it, loss=0.0161, mae=train:	
82%	
84/103 [09:36<02:26, 7.72s/it, loss=0.0161, mae=train:	

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83%		85/103 [09:50<02:08, 7.14s/it, loss=0.0124, mae=train:
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91%		94/103 [10:54<01:08, 7.61s/it, loss=0.0108, mae=train:
92%		95/103 [10:54<01:00, 7.60s/it, loss=0.0108, mae=train:
92%		95/103 [11:02<01:00, 7.60s/it, loss=0.0130, mae=train:
93%		96/103 [11:02<00:53, 7.59s/it, loss=0.0130, mae=train:

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93%|██████████          | 96/103 [11:10<00:53, 7.59s/it, loss=0.0119, mae=train:
94%|██████████          | 97/103 [11:10<00:45, 7.59s/it, loss=0.0119, mae=train:
94%|██████████          | 97/103 [11:17<00:45, 7.59s/it, loss=0.0071, mae=train:
95%|██████████          | 98/103 [11:17<00:37, 7.45s/it, loss=0.0071, mae=train:
95%|██████████          | 98/103 [11:23<00:37, 7.45s/it, loss=0.0111, mae=train:
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96%|██████████          | 99/103 [11:28<00:28, 7.01s/it, loss=0.0115, mae=train:
97%|██████████          | 100/103 [11:28<00:19, 6.65s/it, loss=0.0115, mae=train:
97%|██████████          | 100/103 [11:36<00:19, 6.65s/it, loss=0.0110, mae=train:
98%|██████████          | 101/103 [11:36<00:13, 6.92s/it, loss=0.0110, mae=train:
98%|██████████          | 101/103 [11:42<00:13, 6.92s/it, loss=0.0076, mae=train:
99%|██████████          | 102/103 [11:42<00:06, 6.73s/it, loss=0.0076, mae=train:
99%|██████████          | 102/103 [11:51<00:06, 6.73s/it, loss=0.0108, mae=train:
100%|██████████         | 103/103 [11:51<00:00, 7.40s/it, loss=0.0108, mae=
[001] train=0.018117 | val=0.113365 | 13m10s | LRs=[0.0002, 0.0002, 0.0002]
[001] train: MSE=0.018117, MAE=0.089508 | val:  MSE=0.113365, MAE=0.254210 |
13m10s | LRs=[0.0002, 0.0002, 0.0002]
[002] train=0.008954 | val=0.072580 | 13m10s | LRs=[0.0002, 0.0002, 0.0002]
[002] train: MSE=0.008954, MAE=0.062380 | val:  MSE=0.072580, MAE=0.180213 |
13m10s | LRs=[0.0002, 0.0002, 0.0002]
[003] train=0.007181 | val=0.042655 | 14m28s | LRs=[0.0002, 0.0002, 0.0002]
[003] train: MSE=0.007181, MAE=0.055165 | val:  MSE=0.042655, MAE=0.131449 |
14m28s | LRs=[0.0002, 0.0002, 0.0002]
[004] train=0.005831 | val=0.033460 | 13m56s | LRs=[0.0002, 0.0002, 0.0002]
[004] train: MSE=0.005831, MAE=0.049639 | val:  MSE=0.033460, MAE=0.105499 |
13m56s | LRs=[0.0002, 0.0002, 0.0002]
[005] train=0.004795 | val=0.030957 | 13m29s | LRs=[0.0002, 0.0002, 0.0002]
[005] train: MSE=0.004795, MAE=0.045172 | val:  MSE=0.030957, MAE=0.102042 |
13m29s | LRs=[0.0002, 0.0002, 0.0002]
[006] train=0.003985 | val=0.031058 | 13m27s | LRs=[0.0002, 0.0002, 0.0002]
[006] train: MSE=0.003985, MAE=0.041622 | val:  MSE=0.031058, MAE=0.104034 |
13m27s | LRs=[0.0002, 0.0002, 0.0002]
[007] train=0.003792 | val=0.020038 | 13m09s | LRs=[0.0002, 0.0002, 0.0002]

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[007] train: MSE=0.003792, MAE=0.040964 | val: MSE=0.020038, MAE=0.083371 | 13m09s | LRs=[0.0002, 0.0002, 0.0002]
[008] train=0.003461 | val=0.021004 | 13m48s | LRs=[0.0002, 0.0002, 0.0002]
[008] train: MSE=0.003461, MAE=0.039131 | val: MSE=0.021004, MAE=0.086060 | 13m48s | LRs=[0.0002, 0.0002, 0.0002]
[009] train=0.003102 | val=0.015924 | 13m21s | LRs=[0.0002, 0.0002, 0.0002]
[009] train: MSE=0.003102, MAE=0.037778 | val: MSE=0.015924, MAE=0.073514 | 13m21s | LRs=[0.0002, 0.0002, 0.0002]
[010] train=0.002819 | val=0.010194 | 13m20s | LRs=[0.0002, 0.0002, 0.0002]
[010] train: MSE=0.002819, MAE=0.036578 | val: MSE=0.010194, MAE=0.059349 | 13m20s | LRs=[0.0002, 0.0002, 0.0002]
[011] train=0.002865 | val=0.007835 | 13m42s | LRs=[0.0002, 0.0002, 0.0002]
[011] train: MSE=0.002865, MAE=0.037241 | val: MSE=0.007835, MAE=0.054875 | 13m42s | LRs=[0.0002, 0.0002, 0.0002]
[012] train=0.002349 | val=0.005961 | 13m23s | LRs=[0.0002, 0.0002, 0.0002]
[012] train: MSE=0.002349, MAE=0.033766 | val: MSE=0.005961, MAE=0.046118 | 13m23s | LRs=[0.0002, 0.0002, 0.0002]
[013] train=0.002274 | val=0.008927 | 13m12s | LRs=[0.0002, 0.0002, 0.0002]
[013] train: MSE=0.002274, MAE=0.033366 | val: MSE=0.008927, MAE=0.052163 | 13m12s | LRs=[0.0002, 0.0002, 0.0002]
[014] train=0.002290 | val=0.006089 | 13m48s | LRs=[0.0002, 0.0002, 0.0002]
[014] train: MSE=0.002290, MAE=0.033353 | val: MSE=0.006089, MAE=0.045918 | 13m48s | LRs=[0.0002, 0.0002, 0.0002]
[015] train=0.002092 | val=0.006343 | 13m59s | LRs=[0.0002, 0.0002, 0.0002]
[015] train: MSE=0.002092, MAE=0.031876 | val: MSE=0.006343, MAE=0.041898 | 13m59s | LRs=[0.0002, 0.0002, 0.0002]
[016] train=0.001789 | val=0.004025 | 14m38s | LRs=[0.0002, 0.0002, 0.0002]
[016] train: MSE=0.001789, MAE=0.029777 | val: MSE=0.004025, MAE=0.035562 | 14m38s | LRs=[0.0002, 0.0002, 0.0002]
[017] train=0.001594 | val=0.004309 | 14m28s | LRs=[0.0002, 0.0002, 0.0002]
[017] train: MSE=0.001594, MAE=0.028462 | val: MSE=0.004309, MAE=0.037317 | 14m28s | LRs=[0.0002, 0.0002, 0.0002]
[018] train=0.001493 | val=0.006023 | 13m17s | LRs=[0.0002, 0.0002, 0.0002]
[018] train: MSE=0.001493, MAE=0.027605 | val: MSE=0.006023, MAE=0.042167 | 13m17s | LRs=[0.0002, 0.0002, 0.0002]
[019] train=0.001384 | val=0.008219 | 13m21s | LRs=[0.0002, 0.0002, 0.0002]
[019] train: MSE=0.001384, MAE=0.026627 | val: MSE=0.008219, MAE=0.049455 | 13m21s | LRs=[0.0002, 0.0002, 0.0002]
[020] train=0.001461 | val=0.003805 | 14m10s | LRs=[0.0002, 0.0002, 0.0002]
[020] train: MSE=0.001461, MAE=0.027104 | val: MSE=0.003805, MAE=0.034429 | 14m10s | LRs=[0.0002, 0.0002, 0.0002]
[021] train=0.001356 | val=0.004401 | 13m08s | LRs=[0.0002, 0.0002, 0.0002]
[021] train: MSE=0.001356, MAE=0.026419 | val: MSE=0.004401, MAE=0.040550 | 13m08s | LRs=[0.0002, 0.0002, 0.0002]
[022] train=0.001279 | val=0.004608 | 14m16s | LRs=[0.0002, 0.0002, 0.0002]
[022] train: MSE=0.001279, MAE=0.025406 | val: MSE=0.004608, MAE=0.039600 | 14m16s | LRs=[0.0002, 0.0002, 0.0002]
[023] train=0.001337 | val=0.004206 | 13m19s | LRs=[0.0002, 0.0002, 0.0002]

[023] train: MSE=0.001337, MAE=0.025549 | val: MSE=0.004206, MAE=0.038466 | 13m19s | LRs=[0.0002, 0.0002, 0.0002]
[024] train=0.001145 | val=0.004488 | 13m15s | LRs=[0.0002, 0.0002, 0.0002]
[024] train: MSE=0.001145, MAE=0.024168 | val: MSE=0.004488, MAE=0.035447 | 13m15s | LRs=[0.0002, 0.0002, 0.0002]
[025] train=0.001270 | val=0.004228 | 14m14s | LRs=[0.0002, 0.0002, 0.0002]
[025] train: MSE=0.001270, MAE=0.025262 | val: MSE=0.004228, MAE=0.038834 | 14m14s | LRs=[0.0002, 0.0002, 0.0002]
[026] train=0.001194 | val=0.008227 | 13m53s | LRs=[0.0002, 0.0002, 0.0002]
[026] train: MSE=0.001194, MAE=0.024481 | val: MSE=0.008227, MAE=0.050071 | 13m53s | LRs=[0.0002, 0.0002, 0.0002]
[027] train=0.001256 | val=0.005003 | 13m17s | LRs=[0.0002, 0.0002, 0.0002]
[027] train: MSE=0.001256, MAE=0.025036 | val: MSE=0.005003, MAE=0.040850 | 13m17s | LRs=[0.0002, 0.0002, 0.0002]
[028] train=0.001252 | val=0.008199 | 13m24s | LRs=[0.0002, 0.0002, 0.0002]
Early stopping (no val improv. for 8 epochs). Best val=0.003805
Start training | mode=event | files=39 | batches(train)=103 | device=cuda
[001] train=0.019317 | val=0.076274 | 6m08s | LRs=[0.0002, 0.0002, 0.0002]
[001] train: MSE=0.019317, MAE=0.092200 | val: MSE=0.076274, MAE=0.194432 | 6m08s | LRs=[0.0002, 0.0002, 0.0002]
[002] train=0.009787 | val=0.061614 | 5m03s | LRs=[0.0002, 0.0002, 0.0002]
[002] train: MSE=0.009787, MAE=0.065544 | val: MSE=0.061614, MAE=0.164076 | 5m03s | LRs=[0.0002, 0.0002, 0.0002]
[003] train=0.007209 | val=0.045817 | 4m02s | LRs=[0.0002, 0.0002, 0.0002]
[003] train: MSE=0.007209, MAE=0.054229 | val: MSE=0.045817, MAE=0.129831 | 4m02s | LRs=[0.0002, 0.0002, 0.0002]
[004] train=0.005717 | val=0.049029 | 3m49s | LRs=[0.0002, 0.0002, 0.0002]
[004] train: MSE=0.005717, MAE=0.049177 | val: MSE=0.049029, MAE=0.144073 | 3m49s | LRs=[0.0002, 0.0002, 0.0002]
[005] train=0.004810 | val=0.046212 | 3m56s | LRs=[0.0002, 0.0002, 0.0002]
[005] train: MSE=0.004810, MAE=0.045145 | val: MSE=0.046212, MAE=0.138436 | 3m56s | LRs=[0.0002, 0.0002, 0.0002]
[006] train=0.003941 | val=0.057626 | 4m23s | LRs=[0.0002, 0.0002, 0.0002]
[006] train: MSE=0.003941, MAE=0.041574 | val: MSE=0.057626, MAE=0.165684 | 4m23s | LRs=[0.0002, 0.0002, 0.0002]
[007] train=0.003832 | val=0.042806 | 4m12s | LRs=[0.0002, 0.0002, 0.0002]
[007] train: MSE=0.003832, MAE=0.041450 | val: MSE=0.042806, MAE=0.140495 | 4m12s | LRs=[0.0002, 0.0002, 0.0002]
[008] train=0.003479 | val=0.026267 | 4m02s | LRs=[0.0002, 0.0002, 0.0002]
[008] train: MSE=0.003479, MAE=0.040294 | val: MSE=0.026267, MAE=0.119315 | 4m02s | LRs=[0.0002, 0.0002, 0.0002]
[009] train=0.003137 | val=0.018705 | 3m56s | LRs=[0.0002, 0.0002, 0.0002]
[009] train: MSE=0.003137, MAE=0.038950 | val: MSE=0.018705, MAE=0.098788 | 3m56s | LRs=[0.0002, 0.0002, 0.0002]
[010] train=0.002600 | val=0.009013 | 3m59s | LRs=[0.0002, 0.0002, 0.0002]
[010] train: MSE=0.002600, MAE=0.035376 | val: MSE=0.009013, MAE=0.059832 | 3m59s | LRs=[0.0002, 0.0002, 0.0002]
[011] train=0.002337 | val=0.013616 | 4m01s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.002337, MAE=0.033462 | val: MSE=0.013616, MAE=0.065541 | 4m01s
| LRs=[0.0002, 0.0002, 0.0002]
[012] train=0.002301 | val=0.007800 | 4m00s | LRs=[0.0002, 0.0002, 0.0002]
[012] train: MSE=0.002301, MAE=0.033635 | val: MSE=0.007800, MAE=0.054428 | 4m00s
| LRs=[0.0002, 0.0002, 0.0002]
[013] train=0.002365 | val=0.021442 | 4m10s | LRs=[0.0002, 0.0002, 0.0002]
[013] train: MSE=0.002365, MAE=0.033783 | val: MSE=0.021442, MAE=0.080492 | 4m10s
| LRs=[0.0002, 0.0002, 0.0002]
[014] train=0.002052 | val=0.012381 | 4m00s | LRs=[0.0002, 0.0002, 0.0002]
[014] train: MSE=0.002052, MAE=0.031850 | val: MSE=0.012381, MAE=0.067934 | 4m00s
| LRs=[0.0002, 0.0002, 0.0002]
[015] train=0.002059 | val=0.005248 | 3m51s | LRs=[0.0002, 0.0002, 0.0002]
[015] train: MSE=0.002059, MAE=0.031686 | val: MSE=0.005248, MAE=0.043639 | 3m51s
| LRs=[0.0002, 0.0002, 0.0002]
[016] train=0.001915 | val=0.004571 | 4m01s | LRs=[0.0002, 0.0002, 0.0002]
[016] train: MSE=0.001915, MAE=0.030444 | val: MSE=0.004571, MAE=0.039741 | 4m01s
| LRs=[0.0002, 0.0002, 0.0002]
[017] train=0.001852 | val=0.009629 | 4m13s | LRs=[0.0002, 0.0002, 0.0002]
[017] train: MSE=0.001852, MAE=0.030268 | val: MSE=0.009629, MAE=0.060203 | 4m13s
| LRs=[0.0002, 0.0002, 0.0002]
[018] train=0.001622 | val=0.010635 | 4m03s | LRs=[0.0002, 0.0002, 0.0002]
[018] train: MSE=0.001622, MAE=0.028779 | val: MSE=0.010635, MAE=0.064084 | 4m03s
| LRs=[0.0002, 0.0002, 0.0002]
[019] train=0.001489 | val=0.007930 | 3m57s | LRs=[0.0002, 0.0002, 0.0002]
[019] train: MSE=0.001489, MAE=0.027406 | val: MSE=0.007930, MAE=0.056371 | 3m57s
| LRs=[0.0002, 0.0002, 0.0002]
[020] train=0.001500 | val=0.006986 | 3m42s | LRs=[0.0002, 0.0002, 0.0002]
[020] train: MSE=0.001500, MAE=0.027432 | val: MSE=0.006986, MAE=0.051356 | 3m42s
| LRs=[0.0002, 0.0002, 0.0002]
[021] train=0.001485 | val=0.007323 | 3m57s | LRs=[0.0002, 0.0002, 0.0002]
[021] train: MSE=0.001485, MAE=0.027550 | val: MSE=0.007323, MAE=0.051670 | 3m57s
| LRs=[0.0002, 0.0002, 0.0002]
[022] train=0.001451 | val=0.007953 | 3m50s | LRs=[0.0002, 0.0002, 0.0002]
[022] train: MSE=0.001451, MAE=0.027554 | val: MSE=0.007953, MAE=0.052683 | 3m50s
| LRs=[0.0002, 0.0002, 0.0002]
[023] train=0.001532 | val=0.011095 | 3m57s | LRs=[0.0002, 0.0002, 0.0002]
[023] train: MSE=0.001532, MAE=0.028024 | val: MSE=0.011095, MAE=0.069653 | 3m57s
| LRs=[0.0002, 0.0002, 0.0002]
[024] train=0.001586 | val=0.007214 | 4m04s | LRs=[0.0002, 0.0002, 0.0002]
Early stopping (no val improv. for 8 epochs). Best val=0.004571
Start training | mode=rgb | files=39 | batches(train)=103 | device=cuda
[001] train=0.025399 | val=0.022950 | 11m38s | LRs=[0.0002, 0.0002, 0.0002]
[001] train: MSE=0.025399, MAE=0.110006 | val: MSE=0.022950, MAE=0.101514 |
11m38s | LRs=[0.0002, 0.0002, 0.0002]
[002] train=0.017040 | val=0.016069 | 11m17s | LRs=[0.0002, 0.0002, 0.0002]
[002] train: MSE=0.017040, MAE=0.087961 | val: MSE=0.016069, MAE=0.078505 |
11m17s | LRs=[0.0002, 0.0002, 0.0002]
[003] train=0.015143 | val=0.015928 | 10m59s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.015143, MAE=0.082253 | val: MSE=0.015928, MAE=0.077554 | 10m59s | LRs=[0.0002, 0.0002, 0.0002]
[004] train=0.013829 | val=0.016051 | 10m25s | LRs=[0.0002, 0.0002, 0.0002]
[004] train: MSE=0.013829, MAE=0.077958 | val: MSE=0.016051, MAE=0.077909 | 10m25s | LRs=[0.0002, 0.0002, 0.0002]
[005] train=0.012931 | val=0.012371 | 10m20s | LRs=[0.0002, 0.0002, 0.0002]
[005] train: MSE=0.012931, MAE=0.074105 | val: MSE=0.012371, MAE=0.066972 | 10m20s | LRs=[0.0002, 0.0002, 0.0002]
[006] train=0.012103 | val=0.011021 | 9m39s | LRs=[0.0002, 0.0002, 0.0002]
[006] train: MSE=0.012103, MAE=0.070983 | val: MSE=0.011021, MAE=0.063643 | 9m39s | LRs=[0.0002, 0.0002, 0.0002]
[007] train=0.011662 | val=0.009967 | 9m01s | LRs=[0.0002, 0.0002, 0.0002]
[007] train: MSE=0.011662, MAE=0.069415 | val: MSE=0.009967, MAE=0.059922 | 9m01s | LRs=[0.0002, 0.0002, 0.0002]
[008] train=0.011118 | val=0.009429 | 8m46s | LRs=[0.0002, 0.0002, 0.0002]
[008] train: MSE=0.011118, MAE=0.067594 | val: MSE=0.009429, MAE=0.058433 | 8m46s | LRs=[0.0002, 0.0002, 0.0002]
[009] train=0.010553 | val=0.008966 | 8m24s | LRs=[0.0002, 0.0002, 0.0002]
[009] train: MSE=0.010553, MAE=0.065485 | val: MSE=0.008966, MAE=0.056967 | 8m24s | LRs=[0.0002, 0.0002, 0.0002]
[010] train=0.009918 | val=0.008426 | 8m03s | LRs=[0.0002, 0.0002, 0.0002]
[010] train: MSE=0.009918, MAE=0.063540 | val: MSE=0.008426, MAE=0.054397 | 8m03s | LRs=[0.0002, 0.0002, 0.0002]
[011] train=0.009356 | val=0.008179 | 8m06s | LRs=[0.0002, 0.0002, 0.0002]
[011] train: MSE=0.009356, MAE=0.061450 | val: MSE=0.008179, MAE=0.054038 | 8m06s | LRs=[0.0002, 0.0002, 0.0002]
[012] train=0.009371 | val=0.007917 | 8m01s | LRs=[0.0002, 0.0002, 0.0002]
[012] train: MSE=0.009371, MAE=0.060831 | val: MSE=0.007917, MAE=0.053049 | 8m01s | LRs=[0.0002, 0.0002, 0.0002]
[013] train=0.008807 | val=0.007203 | 7m59s | LRs=[0.0002, 0.0002, 0.0002]
[013] train: MSE=0.008807, MAE=0.059111 | val: MSE=0.007203, MAE=0.050171 | 7m59s | LRs=[0.0002, 0.0002, 0.0002]
[014] train=0.008412 | val=0.006933 | 8m15s | LRs=[0.0002, 0.0002, 0.0002]
[014] train: MSE=0.008412, MAE=0.058029 | val: MSE=0.006933, MAE=0.048697 | 8m15s | LRs=[0.0002, 0.0002, 0.0002]
[015] train=0.007949 | val=0.006670 | 8m04s | LRs=[0.0002, 0.0002, 0.0002]
[015] train: MSE=0.007949, MAE=0.056377 | val: MSE=0.006670, MAE=0.047609 | 8m04s | LRs=[0.0002, 0.0002, 0.0002]
[016] train=0.007711 | val=0.006564 | 8m05s | LRs=[0.0002, 0.0002, 0.0002]
[016] train: MSE=0.007711, MAE=0.055024 | val: MSE=0.006564, MAE=0.047544 | 8m05s | LRs=[0.0002, 0.0002, 0.0002]
[017] train=0.007311 | val=0.006397 | 7m57s | LRs=[0.0002, 0.0002, 0.0002]
[017] train: MSE=0.007311, MAE=0.053900 | val: MSE=0.006397, MAE=0.045983 | 7m57s | LRs=[0.0002, 0.0002, 0.0002]
[018] train=0.007028 | val=0.006216 | 8m08s | LRs=[0.0002, 0.0002, 0.0002]
[018] train: MSE=0.007028, MAE=0.052850 | val: MSE=0.006216, MAE=0.045272 | 8m08s | LRs=[0.0002, 0.0002, 0.0002]
[019] train=0.006776 | val=0.006134 | 6m56s | LRs=[0.0002, 0.0002, 0.0002]

[019] train: MSE=0.006776, MAE=0.051437 | val: MSE=0.006134, MAE=0.044197 | 6m56s
| LRs=[0.0002, 0.0002, 0.0002]
[020] train=0.006561 | val=0.005880 | 5m37s | LRs=[0.0002, 0.0002, 0.0002]
[020] train: MSE=0.006561, MAE=0.050730 | val: MSE=0.005880, MAE=0.043157 | 5m37s
| LRs=[0.0002, 0.0002, 0.0002]
[021] train=0.006091 | val=0.005728 | 5m53s | LRs=[0.0002, 0.0002, 0.0002]
[021] train: MSE=0.006091, MAE=0.049135 | val: MSE=0.005728, MAE=0.042642 | 5m53s
| LRs=[0.0002, 0.0002, 0.0002]
[022] train=0.006337 | val=0.005793 | 5m49s | LRs=[0.0002, 0.0002, 0.0002]
[022] train: MSE=0.006337, MAE=0.049629 | val: MSE=0.005793, MAE=0.042861 | 5m49s
| LRs=[0.0002, 0.0002, 0.0002]
[023] train=0.005998 | val=0.005626 | 5m44s | LRs=[0.0002, 0.0002, 0.0002]
[023] train: MSE=0.005998, MAE=0.048272 | val: MSE=0.005626, MAE=0.042030 | 5m44s
| LRs=[0.0002, 0.0002, 0.0002]
[024] train=0.005726 | val=0.005447 | 5m52s | LRs=[0.0002, 0.0002, 0.0002]
[024] train: MSE=0.005726, MAE=0.046970 | val: MSE=0.005447, MAE=0.041903 | 5m52s
| LRs=[0.0002, 0.0002, 0.0002]
[025] train=0.005535 | val=0.005334 | 5m59s | LRs=[0.0002, 0.0002, 0.0002]
[025] train: MSE=0.005535, MAE=0.046503 | val: MSE=0.005334, MAE=0.041589 | 5m59s
| LRs=[0.0002, 0.0002, 0.0002]
[026] train=0.005405 | val=0.005309 | 6m24s | LRs=[0.0002, 0.0002, 0.0002]
[026] train: MSE=0.005405, MAE=0.045490 | val: MSE=0.005309, MAE=0.041215 | 6m24s
| LRs=[0.0002, 0.0002, 0.0002]
[027] train=0.005122 | val=0.005032 | 6m43s | LRs=[0.0002, 0.0002, 0.0002]
[027] train: MSE=0.005122, MAE=0.044690 | val: MSE=0.005032, MAE=0.040174 | 6m43s
| LRs=[0.0002, 0.0002, 0.0002]
[028] train=0.005101 | val=0.005059 | 7m20s | LRs=[0.0002, 0.0002, 0.0002]
[028] train: MSE=0.005101, MAE=0.044625 | val: MSE=0.005059, MAE=0.039768 | 7m20s
| LRs=[0.0002, 0.0002, 0.0002]
[029] train=0.005051 | val=0.004991 | 8m13s | LRs=[0.0002, 0.0002, 0.0002]
[029] train: MSE=0.005051, MAE=0.044052 | val: MSE=0.004991, MAE=0.039968 | 8m13s
| LRs=[0.0002, 0.0002, 0.0002]
[030] train=0.004816 | val=0.005100 | 7m53s | LRs=[0.0002, 0.0002, 0.0002]
[030] train: MSE=0.004816, MAE=0.043144 | val: MSE=0.005100, MAE=0.040304 | 7m53s
| LRs=[0.0002, 0.0002, 0.0002]
[031] train=0.004831 | val=0.004862 | 7m47s | LRs=[0.0002, 0.0002, 0.0002]
[031] train: MSE=0.004831, MAE=0.042906 | val: MSE=0.004862, MAE=0.039231 | 7m47s
| LRs=[0.0002, 0.0002, 0.0002]
[032] train=0.004799 | val=0.004843 | 7m55s | LRs=[0.0002, 0.0002, 0.0002]
[032] train: MSE=0.004799, MAE=0.042864 | val: MSE=0.004843, MAE=0.039723 | 7m55s
| LRs=[0.0002, 0.0002, 0.0002]
[033] train=0.004582 | val=0.004709 | 8m02s | LRs=[0.0002, 0.0002, 0.0002]
[033] train: MSE=0.004582, MAE=0.042036 | val: MSE=0.004709, MAE=0.038528 | 8m02s
| LRs=[0.0002, 0.0002, 0.0002]
[034] train=0.004488 | val=0.004943 | 8m01s | LRs=[0.0002, 0.0002, 0.0002]
[034] train: MSE=0.004488, MAE=0.041521 | val: MSE=0.004943, MAE=0.038664 | 8m01s
| LRs=[0.0002, 0.0002, 0.0002]
[035] train=0.004481 | val=0.004636 | 8m06s | LRs=[0.0002, 0.0002, 0.0002]

[035] train: MSE=0.004481, MAE=0.041322 | val: MSE=0.004636, MAE=0.037756 | 8m06s
| LRs=[0.0002, 0.0002, 0.0002]
[036] train=0.004150 | val=0.004599 | 7m58s | LRs=[0.0002, 0.0002, 0.0002]
[036] train: MSE=0.004150, MAE=0.039866 | val: MSE=0.004599, MAE=0.038294 | 7m58s
| LRs=[0.0002, 0.0002, 0.0002]
[037] train=0.004090 | val=0.004768 | 7m54s | LRs=[0.0002, 0.0002, 0.0002]
[037] train: MSE=0.004090, MAE=0.039860 | val: MSE=0.004768, MAE=0.037898 | 7m54s
| LRs=[0.0002, 0.0002, 0.0002]
[038] train=0.004029 | val=0.004569 | 7m42s | LRs=[0.0002, 0.0002, 0.0002]
[038] train: MSE=0.004029, MAE=0.039596 | val: MSE=0.004569, MAE=0.038160 | 7m42s
| LRs=[0.0002, 0.0002, 0.0002]
[039] train=0.003926 | val=0.004456 | 7m56s | LRs=[0.0002, 0.0002, 0.0002]
[039] train: MSE=0.003926, MAE=0.039063 | val: MSE=0.004456, MAE=0.036983 | 7m56s
| LRs=[0.0002, 0.0002, 0.0002]
[040] train=0.003865 | val=0.004549 | 8m44s | LRs=[0.0002, 0.0002, 0.0002]
[040] train: MSE=0.003865, MAE=0.039044 | val: MSE=0.004549, MAE=0.037476 | 8m44s
| LRs=[0.0002, 0.0002, 0.0002]
[041] train=0.003796 | val=0.004609 | 8m54s | LRs=[0.0002, 0.0002, 0.0002]
[041] train: MSE=0.003796, MAE=0.038463 | val: MSE=0.004609, MAE=0.037874 | 8m54s
| LRs=[0.0002, 0.0002, 0.0002]
[042] train=0.003815 | val=0.004273 | 7m10s | LRs=[0.0002, 0.0002, 0.0002]
[042] train: MSE=0.003815, MAE=0.038275 | val: MSE=0.004273, MAE=0.036473 | 7m10s
| LRs=[0.0002, 0.0002, 0.0002]
[043] train=0.003813 | val=0.004403 | 6m21s | LRs=[0.0002, 0.0002, 0.0002]
[043] train: MSE=0.003813, MAE=0.038740 | val: MSE=0.004403, MAE=0.036369 | 6m21s
| LRs=[0.0002, 0.0002, 0.0002]
[044] train=0.003628 | val=0.004443 | 9m40s | LRs=[0.0002, 0.0002, 0.0002]
[044] train: MSE=0.003628, MAE=0.037620 | val: MSE=0.004443, MAE=0.035966 | 9m40s
| LRs=[0.0002, 0.0002, 0.0002]
[045] train=0.003534 | val=0.004316 | 6m21s | LRs=[0.0002, 0.0002, 0.0002]
[045] train: MSE=0.003534, MAE=0.037152 | val: MSE=0.004316, MAE=0.036439 | 6m21s
| LRs=[0.0002, 0.0002, 0.0002]
[046] train=0.003491 | val=0.004568 | 6m03s | LRs=[0.0002, 0.0002, 0.0002]
[046] train: MSE=0.003491, MAE=0.036985 | val: MSE=0.004568, MAE=0.036691 | 6m03s
| LRs=[0.0002, 0.0002, 0.0002]
[047] train=0.003447 | val=0.004465 | 5m48s | LRs=[0.0002, 0.0002, 0.0002]
[047] train: MSE=0.003447, MAE=0.036642 | val: MSE=0.004465, MAE=0.036304 | 5m48s
| LRs=[0.0002, 0.0002, 0.0002]
[048] train=0.003496 | val=0.004585 | 5m51s | LRs=[0.0002, 0.0002, 0.0002]
[048] train: MSE=0.003496, MAE=0.036778 | val: MSE=0.004585, MAE=0.036367 | 5m51s
| LRs=[0.0002, 0.0002, 0.0002]
[049] train=0.003320 | val=0.004291 | 5m49s | LRs=[0.0002, 0.0002, 0.0002]
[049] train: MSE=0.003320, MAE=0.036311 | val: MSE=0.004291, MAE=0.035859 | 5m49s
| LRs=[0.0002, 0.0002, 0.0002]
[050] train=0.003223 | val=0.004276 | 5m43s | LRs=[0.0002, 0.0002, 0.0002]
Early stopping (no val improv. for 8 epochs). Best val=0.004273

```
$ python3
train.py --data ./h5_p1_low/ --mode
fusion --workers 0 --batch 64 --epochs 50 --no_amp --save_dir checkpoint_p1_low_fusion
&& python3 train.py --data ./h5_p1_low/ --m
ode event --workers 0 --batch 64 --epochs 50 --no_amp --save_dir
checkpoint_p1_low_event && python3 train.py --data ./h5_p1_low/ --
mode rgb --workers 0 --batch 64 --epochs 50 --no_amp --save_dir checkpoint_p1_low_rgb
Start training | mode=fusion | files=77 | batches(train)=190 | device=cuda
[001] train=0.017010 | val=0.072880 | 34m50s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.017010, MAE=0.086693 | val: MSE=0.072880, MAE=0.203202 |
34m50s | LRs=[0.0002, 0.0002, 0.0002]
[002] train=0.009596 | val=0.060102 | 33m42s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.009596, MAE=0.064086 | val: MSE=0.060102, MAE=0.160690 |
33m42s | LRs=[0.0002, 0.0002, 0.0002]
[003] train=0.007352 | val=0.049765 | 32m28s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.007352, MAE=0.055232 | val: MSE=0.049765, MAE=0.178753 |
32m28s | LRs=[0.0002, 0.0002, 0.0002]
[004] train=0.005890 | val=0.034293 | 31m58s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.005890, MAE=0.049284 | val: MSE=0.034293, MAE=0.136356 |
31m58s | LRs=[0.0002, 0.0002, 0.0002]
[005] train=0.005129 | val=0.020926 | 32m19s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.005129, MAE=0.046582 | val: MSE=0.020926, MAE=0.087157 |
32m19s | LRs=[0.0002, 0.0002, 0.0002]
[006] train=0.004439 | val=0.025070 | 32m15s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.004439, MAE=0.043524 | val: MSE=0.025070, MAE=0.100687 |
32m15s | LRs=[0.0002, 0.0002, 0.0002]
[007] train=0.003878 | val=0.007958 | 34m19s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.003878, MAE=0.040502 | val: MSE=0.007958, MAE=0.048539 |
34m19s | LRs=[0.0002, 0.0002, 0.0002]
[008] train=0.003250 | val=0.007313 | 34m13s | LRs=[0.0002, 0.0002, 0.0002]

[008] train: MSE=0.003250, MAE=0.037621 | val: MSE=0.007313, MAE=0.046641 |
34m13s | LRs=[0.0002, 0.0002, 0.0002]
[009] train=0.002984 | val=0.010109 | 34m54s | LRs=[0.0002, 0.0002, 0.0002]

[009] train: MSE=0.002984, MAE=0.035845 | val: MSE=0.010109, MAE=0.055239 |
34m54s | LRs=[0.0002, 0.0002, 0.0002]
```

[010] train=0.002600 | val=0.007666 | 35m21s | LRs=[0.0002, 0.0002, 0.0002]

[010] train: MSE=0.002600, MAE=0.033560 | val: MSE=0.007666, MAE=0.045784 | 35m21s | LRs=[0.0002, 0.0002, 0.0002]

[011] train=0.002261 | val=0.006338 | 33m59s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.002261, MAE=0.032046 | val: MSE=0.006338, MAE=0.039513 | 33m59s | LRs=[0.0002, 0.0002, 0.0002]

[012] train=0.002061 | val=0.006636 | 30m50s | LRs=[0.0002, 0.0002, 0.0002]

[012] train: MSE=0.002061, MAE=0.030628 | val: MSE=0.006636, MAE=0.042708 | 30m50s | LRs=[0.0002, 0.0002, 0.0002]

[013] train=0.002051 | val=0.025899 | 31m41s | LRs=[0.0002, 0.0002, 0.0002]

[013] train: MSE=0.002051, MAE=0.030423 | val: MSE=0.025899, MAE=0.114046 | 31m41s | LRs=[0.0002, 0.0002, 0.0002]

[014] train=0.002012 | val=0.009197 | 32m09s | LRs=[0.0002, 0.0002, 0.0002]

[014] train: MSE=0.002012, MAE=0.029834 | val: MSE=0.009197, MAE=0.052213 | 32m09s | LRs=[0.0002, 0.0002, 0.0002]

[015] train=0.001909 | val=0.033462 | 32m36s | LRs=[0.0002, 0.0002, 0.0002]

[015] train: MSE=0.001909, MAE=0.029015 | val: MSE=0.033462, MAE=0.128949 | 32m36s | LRs=[0.0002, 0.0002, 0.0002]

[016] train=0.001867 | val=0.007569 | 33m48s | LRs=[0.0002, 0.0002, 0.0002]

[016] train: MSE=0.001867, MAE=0.028638 | val: MSE=0.007569, MAE=0.043914 | 33m48s | LRs=[0.0002, 0.0002, 0.0002]

[017] train=0.001657 | val=0.028940 | 36m08s | LRs=[0.0002, 0.0002, 0.0002]

[017] train: MSE=0.001657, MAE=0.027365 | val: MSE=0.028940, MAE=0.103972 | 36m08s | LRs=[0.0002, 0.0002, 0.0002]

[018] train=0.001520 | val=0.014927 | 38m13s | LRs=[0.0002, 0.0002, 0.0002]

[018] train: MSE=0.001520, MAE=0.026351 | val: MSE=0.014927, MAE=0.075623 | 38m13s | LRs=[0.0002, 0.0002, 0.0002]

[019] train=0.001482 | val=0.009120 | 38m07s | LRs=[0.0002, 0.0002, 0.0002]

Early stopping (no val improv. for 8 epochs). Best val=0.006338

Start training | mode=event | files=77 | batches(train)=190 | device=cuda

[001] train=0.017462 | val=0.078665 | 15m24s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.017462, MAE=0.086414 | val: MSE=0.078665, MAE=0.228808 | 15m24s | LRs=[0.0002, 0.0002, 0.0002]

[002] train=0.010118 | val=0.061119 | 15m29s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.010118, MAE=0.064862 | val: MSE=0.061119, MAE=0.173753 | 15m29s | LRs=[0.0002, 0.0002, 0.0002]

[003] train=0.007666 | val=0.061282 | 13m20s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.007666, MAE=0.056027 | val: MSE=0.061282, MAE=0.169749 |
13m20s | LRs=[0.0002, 0.0002, 0.0002]

[004] train=0.006130 | val=0.058549 | 10m45s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.006130, MAE=0.050445 | val: MSE=0.058549, MAE=0.174218 |
10m45s | LRs=[0.0002, 0.0002, 0.0002]

[005] train=0.004995 | val=0.027357 | 9m26s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.004995, MAE=0.045726 | val: MSE=0.027357, MAE=0.110700 | 9m26s
| LRs=[0.0002, 0.0002, 0.0002]

[006] train=0.004336 | val=0.009356 | 9m36s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.004336, MAE=0.043971 | val: MSE=0.009356, MAE=0.053630 | 9m36s
| LRs=[0.0002, 0.0002, 0.0002]

[007] train=0.003866 | val=0.014054 | 9m15s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.003866, MAE=0.041047 | val: MSE=0.014054, MAE=0.073943 | 9m15s
| LRs=[0.0002, 0.0002, 0.0002]

[008] train=0.003574 | val=0.010682 | 9m31s | LRs=[0.0002, 0.0002, 0.0002]

[008] train: MSE=0.003574, MAE=0.039560 | val: MSE=0.010682, MAE=0.059906 | 9m31s
| LRs=[0.0002, 0.0002, 0.0002]

[009] train=0.003205 | val=0.012474 | 9m08s | LRs=[0.0002, 0.0002, 0.0002]

[009] train: MSE=0.003205, MAE=0.037401 | val: MSE=0.012474, MAE=0.068583 | 9m08s
| LRs=[0.0002, 0.0002, 0.0002]

[010] train=0.002756 | val=0.013075 | 9m01s | LRs=[0.0002, 0.0002, 0.0002]

[010] train: MSE=0.002756, MAE=0.034762 | val: MSE=0.013075, MAE=0.062600 | 9m01s
| LRs=[0.0002, 0.0002, 0.0002]

[011] train=0.002388 | val=0.017211 | 9m05s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.002388, MAE=0.033136 | val: MSE=0.017211, MAE=0.078597 | 9m05s
| LRs=[0.0002, 0.0002, 0.0002]

[012] train=0.002277 | val=0.016589 | 9m35s | LRs=[0.0002, 0.0002, 0.0002]

[012] train: MSE=0.002277, MAE=0.031965 | val: MSE=0.016589, MAE=0.081517 | 9m35s
| LRs=[0.0002, 0.0002, 0.0002]

[013] train=0.002230 | val=0.009071 | 9m18s | LRs=[0.0002, 0.0002, 0.0002]

[013] train: MSE=0.002230, MAE=0.031935 | val: MSE=0.009071, MAE=0.048306 | 9m18s
| LRs=[0.0002, 0.0002, 0.0002]

[014] train=0.002088 | val=0.017695 | 9m12s | LRs=[0.0002, 0.0002, 0.0002]

[014] train: MSE=0.002088, MAE=0.030644 | val: MSE=0.017695, MAE=0.078980 | 9m12s
| LRs=[0.0002, 0.0002, 0.0002]

[015] train=0.001806 | val=0.033740 | 13m11s | LRs=[0.0002, 0.0002, 0.0002]

[015] train: MSE=0.001806, MAE=0.029108 | val: MSE=0.033740, MAE=0.121372 | 13m11s | LRs=[0.0002, 0.0002, 0.0002]

[016] train=0.001635 | val=0.006259 | 12m34s | LRs=[0.0002, 0.0002, 0.0002]

[016] train: MSE=0.001635, MAE=0.027822 | val: MSE=0.006259, MAE=0.042814 | 12m34s | LRs=[0.0002, 0.0002, 0.0002]

[017] train=0.001673 | val=0.006406 | 17m15s | LRs=[0.0002, 0.0002, 0.0002]

[017] train: MSE=0.001673, MAE=0.027908 | val: MSE=0.006406, MAE=0.043925 | 17m15s | LRs=[0.0002, 0.0002, 0.0002]

[018] train=0.001620 | val=0.006492 | 13m59s | LRs=[0.0002, 0.0002, 0.0002]

[018] train: MSE=0.001620, MAE=0.027286 | val: MSE=0.006492, MAE=0.044234 | 13m59s | LRs=[0.0002, 0.0002, 0.0002]

[019] train=0.001479 | val=0.012094 | 15m07s | LRs=[0.0002, 0.0002, 0.0002]

[019] train: MSE=0.001479, MAE=0.026135 | val: MSE=0.012094, MAE=0.060263 | 15m07s | LRs=[0.0002, 0.0002, 0.0002]

[020] train=0.001317 | val=0.010316 | 10m22s | LRs=[0.0002, 0.0002, 0.0002]

[020] train: MSE=0.001317, MAE=0.024855 | val: MSE=0.010316, MAE=0.050950 | 10m22s | LRs=[0.0002, 0.0002, 0.0002]

[021] train=0.001389 | val=0.009493 | 8m07s | LRs=[0.0002, 0.0002, 0.0002]

[021] train: MSE=0.001389, MAE=0.025356 | val: MSE=0.009493, MAE=0.053913 | 8m07s | LRs=[0.0002, 0.0002, 0.0002]

[022] train=0.001395 | val=0.011641 | 5m49s | LRs=[0.0002, 0.0002, 0.0002]

[022] train: MSE=0.001395, MAE=0.025177 | val: MSE=0.011641, MAE=0.061684 | 5m49s | LRs=[0.0002, 0.0002, 0.0002]

[023] train=0.001276 | val=0.053613 | 4m17s | LRs=[0.0002, 0.0002, 0.0002]

[023] train: MSE=0.001276, MAE=0.024312 | val: MSE=0.053613, MAE=0.172891 | 4m17s | LRs=[0.0002, 0.0002, 0.0002]

[024] train=0.001143 | val=0.025585 | 4m21s | LRs=[0.0002, 0.0002, 0.0002]

Early stopping (no val improv. for 8 epochs). Best val=0.006259

Start training | mode=rgb | files=77 | batches(train)=190 | device=cuda

[001] train=0.024247 | val=0.021699 | 12m22s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.024247, MAE=0.106132 | val: MSE=0.021699, MAE=0.099670 | 12m22s | LRs=[0.0002, 0.0002, 0.0002]

[002] train=0.018160 | val=0.019484 | 11m25s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.018160, MAE=0.088897 | val: MSE=0.019484, MAE=0.089506 | 11m25s | LRs=[0.0002, 0.0002, 0.0002]

[003] train=0.015999 | val=0.014716 | 10m19s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.015999, MAE=0.082308 | val: MSE=0.014716, MAE=0.075112 |
10m19s | LRs=[0.0002, 0.0002, 0.0002]

[004] train=0.014616 | val=0.013061 | 7m48s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.014616, MAE=0.078257 | val: MSE=0.013061, MAE=0.068605 | 7m48s
| LRs=[0.0002, 0.0002, 0.0002]

[005] train=0.013823 | val=0.012009 | 5m55s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.013823, MAE=0.075656 | val: MSE=0.012009, MAE=0.065043 | 5m55s
| LRs=[0.0002, 0.0002, 0.0002]

[006] train=0.012880 | val=0.011041 | 5m56s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.012880, MAE=0.072624 | val: MSE=0.011041, MAE=0.062697 | 5m56s
| LRs=[0.0002, 0.0002, 0.0002]

[007] train=0.012031 | val=0.010637 | 5m49s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.012031, MAE=0.069548 | val: MSE=0.010637, MAE=0.059919 | 5m49s
| LRs=[0.0002, 0.0002, 0.0002]

[008] train=0.011292 | val=0.010338 | 5m45s | LRs=[0.0002, 0.0002, 0.0002]

[008] train: MSE=0.011292, MAE=0.066821 | val: MSE=0.010338, MAE=0.058428 | 5m45s
| LRs=[0.0002, 0.0002, 0.0002]

[009] train=0.010534 | val=0.009724 | 6m02s | LRs=[0.0002, 0.0002, 0.0002]

[009] train: MSE=0.010534, MAE=0.064142 | val: MSE=0.009724, MAE=0.056328 | 6m02s
| LRs=[0.0002, 0.0002, 0.0002]

[010] train=0.010002 | val=0.009650 | 5m50s | LRs=[0.0002, 0.0002, 0.0002]

[010] train: MSE=0.010002, MAE=0.062142 | val: MSE=0.009650, MAE=0.055176 | 5m50s
| LRs=[0.0002, 0.0002, 0.0002]

[011] train=0.009522 | val=0.009292 | 5m52s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.009522, MAE=0.060086 | val: MSE=0.009292, MAE=0.054300 | 5m52s
| LRs=[0.0002, 0.0002, 0.0002]

[012] train=0.009068 | val=0.009388 | 5m42s | LRs=[0.0002, 0.0002, 0.0002]

[012] train: MSE=0.009068, MAE=0.058278 | val: MSE=0.009388, MAE=0.054551 | 5m42s
| LRs=[0.0002, 0.0002, 0.0002]

[013] train=0.008842 | val=0.008972 | 5m43s | LRs=[0.0002, 0.0002, 0.0002]

[013] train: MSE=0.008842, MAE=0.057384 | val: MSE=0.008972, MAE=0.052256 | 5m43s
| LRs=[0.0002, 0.0002, 0.0002]

[014] train=0.008352 | val=0.008495 | 5m56s | LRs=[0.0002, 0.0002, 0.0002]

[014] train: MSE=0.008352, MAE=0.055425 | val: MSE=0.008495, MAE=0.050270 | 5m56s
| LRs=[0.0002, 0.0002, 0.0002]

[015] train=0.008003 | val=0.008356 | 5m47s | LRs=[0.0002, 0.0002, 0.0002]

[015] train: MSE=0.008003, MAE=0.054324 | val: MSE=0.008356, MAE=0.050410 | 5m47s
| LRs=[0.0002, 0.0002, 0.0002]

[016] train=0.007751 | val=0.008479 | 5m43s | LRs=[0.0002, 0.0002, 0.0002]

[016] train: MSE=0.007751, MAE=0.053149 | val: MSE=0.008479, MAE=0.050925 | 5m43s
| LRs=[0.0002, 0.0002, 0.0002]

[017] train=0.007550 | val=0.008480 | 5m46s | LRs=[0.0002, 0.0002, 0.0002]

[017] train: MSE=0.007550, MAE=0.052486 | val: MSE=0.008480, MAE=0.050933 | 5m46s
| LRs=[0.0002, 0.0002, 0.0002]

[018] train=0.007377 | val=0.008231 | 5m51s | LRs=[0.0002, 0.0002, 0.0002]

[018] train: MSE=0.007377, MAE=0.051691 | val: MSE=0.008231, MAE=0.049890 | 5m51s
| LRs=[0.0002, 0.0002, 0.0002]

[019] train=0.006862 | val=0.008655 | 5m55s | LRs=[0.0002, 0.0002, 0.0002]

[019] train: MSE=0.006862, MAE=0.049930 | val: MSE=0.008655, MAE=0.050451 | 5m55s
| LRs=[0.0002, 0.0002, 0.0002]

[020] train=0.006848 | val=0.007937 | 6m03s | LRs=[0.0002, 0.0002, 0.0002]

[020] train: MSE=0.006848, MAE=0.049440 | val: MSE=0.007937, MAE=0.048681 | 6m03s
| LRs=[0.0002, 0.0002, 0.0002]

[021] train=0.006546 | val=0.007687 | 5m39s | LRs=[0.0002, 0.0002, 0.0002]

[021] train: MSE=0.006546, MAE=0.048628 | val: MSE=0.007687, MAE=0.047518 | 5m39s
| LRs=[0.0002, 0.0002, 0.0002]

[022] train=0.006421 | val=0.007903 | 8m00s | LRs=[0.0002, 0.0002, 0.0002]

[022] train: MSE=0.006421, MAE=0.048099 | val: MSE=0.007903, MAE=0.048251 | 8m00s
| LRs=[0.0002, 0.0002, 0.0002]

[023] train=0.006206 | val=0.007704 | 6m25s | LRs=[0.0002, 0.0002, 0.0002]

[023] train: MSE=0.006206, MAE=0.047199 | val: MSE=0.007704, MAE=0.047058 | 6m25s
| LRs=[0.0002, 0.0002, 0.0002]

[024] train=0.006134 | val=0.007332 | 5m56s | LRs=[0.0002, 0.0002, 0.0002]

[024] train: MSE=0.006134, MAE=0.047029 | val: MSE=0.007332, MAE=0.046094 | 5m56s
| LRs=[0.0002, 0.0002, 0.0002]

[025] train=0.005962 | val=0.007154 | 7m25s | LRs=[0.0002, 0.0002, 0.0002]

[025] train: MSE=0.005962, MAE=0.046136 | val: MSE=0.007154, MAE=0.046158 | 7m25s
| LRs=[0.0002, 0.0002, 0.0002]

[026] train=0.005664 | val=0.007235 | 6m07s | LRs=[0.0002, 0.0002, 0.0002]

[026] train: MSE=0.005664, MAE=0.045421 | val: MSE=0.007235, MAE=0.045846 | 6m07s
| LRs=[0.0002, 0.0002, 0.0002]

[027] train=0.005538 | val=0.006853 | 5m51s | LRs=[0.0002, 0.0002, 0.0002]

[027] train: MSE=0.005538, MAE=0.044927 | val: MSE=0.006853, MAE=0.044860 | 5m51s
| LRs=[0.0002, 0.0002, 0.0002]

[028] train=0.005392 | val=0.007036 | 5m53s | LRs=[0.0002, 0.0002, 0.0002]

[028] train: MSE=0.005392, MAE=0.044503 | val: MSE=0.007036, MAE=0.045429 | 5m53s
| LRs=[0.0002, 0.0002, 0.0002]

[029] train=0.005335 | val=0.006867 | 5m52s | LRs=[0.0002, 0.0002, 0.0002]

[029] train: MSE=0.005335, MAE=0.044101 | val: MSE=0.006867, MAE=0.044165 | 5m52s
| LRs=[0.0002, 0.0002, 0.0002]

[030] train=0.005219 | val=0.006495 | 6m04s | LRs=[0.0002, 0.0002, 0.0002]

[030] train: MSE=0.005219, MAE=0.043559 | val: MSE=0.006495, MAE=0.043629 | 6m04s
| LRs=[0.0002, 0.0002, 0.0002]

[031] train=0.005008 | val=0.007441 | 6m09s | LRs=[0.0002, 0.0002, 0.0002]

[031] train: MSE=0.005008, MAE=0.042877 | val: MSE=0.007441, MAE=0.046064 | 6m09s
| LRs=[0.0002, 0.0002, 0.0002]

[032] train=0.004958 | val=0.006523 | 5m57s | LRs=[0.0002, 0.0002, 0.0002]

[032] train: MSE=0.004958, MAE=0.042770 | val: MSE=0.006523, MAE=0.043070 | 5m57s
| LRs=[0.0002, 0.0002, 0.0002]

[033] train=0.004786 | val=0.006702 | 6m03s | LRs=[0.0002, 0.0002, 0.0002]

[033] train: MSE=0.004786, MAE=0.041827 | val: MSE=0.006702, MAE=0.043803 | 6m03s
| LRs=[0.0002, 0.0002, 0.0002]

[034] train=0.004743 | val=0.006433 | 6m06s | LRs=[0.0002, 0.0002, 0.0002]

[034] train: MSE=0.004743, MAE=0.041729 | val: MSE=0.006433, MAE=0.042525 | 6m06s
| LRs=[0.0002, 0.0002, 0.0002]

[035] train=0.004578 | val=0.006327 | 6m27s | LRs=[0.0002, 0.0002, 0.0002]

[035] train: MSE=0.004578, MAE=0.041269 | val: MSE=0.006327, MAE=0.042207 | 6m27s
| LRs=[0.0002, 0.0002, 0.0002]

[036] train=0.004576 | val=0.006371 | 8m04s | LRs=[0.0002, 0.0002, 0.0002]

[036] train: MSE=0.004576, MAE=0.041016 | val: MSE=0.006371, MAE=0.041874 | 8m04s
| LRs=[0.0002, 0.0002, 0.0002]

[037] train=0.004368 | val=0.006199 | 11m27s | LRs=[0.0002, 0.0002, 0.0002]

[037] train: MSE=0.004368, MAE=0.040183 | val: MSE=0.006199, MAE=0.041747 |
11m27s | LRs=[0.0002, 0.0002, 0.0002]

[038] train=0.004220 | val=0.006494 | 10m27s | LRs=[0.0002, 0.0002, 0.0002]

[038] train: MSE=0.004220, MAE=0.039744 | val: MSE=0.006494, MAE=0.042348 |
10m27s | LRs=[0.0002, 0.0002, 0.0002]

[039] train=0.004259 | val=0.006148 | 8m29s | LRs=[0.0002, 0.0002, 0.0002]

[039] train: MSE=0.004259, MAE=0.039585 | val: MSE=0.006148, MAE=0.041156 | 8m29s
| LRs=[0.0002, 0.0002, 0.0002]

[040] train=0.004241 | val=0.006051 | 8m00s | LRs=[0.0002, 0.0002, 0.0002]

[040] train: MSE=0.004241, MAE=0.039594 | val: MSE=0.006051, MAE=0.040713 | 8m00s
| LRs=[0.0002, 0.0002, 0.0002]

[041] train=0.004020 | val=0.006028 | 8m51s | LRs=[0.0002, 0.0002, 0.0002]

[041] train: MSE=0.004020, MAE=0.038680 | val: MSE=0.006028, MAE=0.040807 | 8m51s
| LRs=[0.0002, 0.0002, 0.0002]

[042] train=0.004025 | val=0.005865 | 8m15s | LRs=[0.0002, 0.0002, 0.0002]

[042] train: MSE=0.004025, MAE=0.038661 | val: MSE=0.005865, MAE=0.040411 | 8m15s
| LRs=[0.0002, 0.0002, 0.0002]

[043] train=0.003879 | val=0.005954 | 10m18s | LRs=[0.0002, 0.0002, 0.0002]

[043] train: MSE=0.003879, MAE=0.037950 | val: MSE=0.005954, MAE=0.040528 |
10m18s | LRs=[0.0002, 0.0002, 0.0002]

[044] train=0.003795 | val=0.005823 | 12m35s | LRs=[0.0002, 0.0002, 0.0002]

[044] train: MSE=0.003795, MAE=0.037771 | val: MSE=0.005823, MAE=0.039269 |
12m35s | LRs=[0.0002, 0.0002, 0.0002]

[045] train=0.003754 | val=0.005785 | 12m57s | LRs=[0.0002, 0.0002, 0.0002]

[045] train: MSE=0.003754, MAE=0.037259 | val: MSE=0.005785, MAE=0.039322 |
12m57s | LRs=[0.0002, 0.0002, 0.0002]

[046] train=0.003677 | val=0.005969 | 13m47s | LRs=[0.0002, 0.0002, 0.0002]

[046] train: MSE=0.003677, MAE=0.037015 | val: MSE=0.005969, MAE=0.039459 |
13m47s | LRs=[0.0002, 0.0002, 0.0002]

[047] train=0.003722 | val=0.005645 | 15m41s | LRs=[0.0002, 0.0002, 0.0002]

[047] train: MSE=0.003722, MAE=0.037187 | val: MSE=0.005645, MAE=0.039273 |
15m41s | LRs=[0.0002, 0.0002, 0.0002]

[048] train=0.003571 | val=0.005601 | 16m05s | LRs=[0.0002, 0.0002, 0.0002]

[048] train: MSE=0.003571, MAE=0.036603 | val: MSE=0.005601, MAE=0.039154 |
16m05s | LRs=[0.0002, 0.0002, 0.0002]

[049] train=0.003435 | val=0.005495 | 16m46s | LRs=[0.0002, 0.0002, 0.0002]

[049] train: MSE=0.003435, MAE=0.035938 | val: MSE=0.005495, MAE=0.038162 |
16m46s | LRs=[0.0002, 0.0002, 0.0002]

[050] train=0.003313 | val=0.005299 | 20m16s | LRs=[0.0002, 0.0002, 0.0002]

[050] train: MSE=0.003313, MAE=0.035313 | val: MSE=0.005299, MAE=0.037401 |
20m16s | LRs=[0.0002, 0.0002, 0.0002]

[REDACTED]

[REDACTED]\$ python3
train.py --data ./h5_all --mode fusion --workers 0 --batch 64 --epochs 50 --no_amp --save_dir
checkpoint_all_fusion && python3 train.py --data ./h5_all --mode event --workers 0 --batch
64 --epochs 50 --no_amp --save_dir checkpoint_all_event && python3 train.py --data ./h5_all
--mode rgb --workers 0 --batch 64 --epochs 50 --no_amp --save_dir checkpoint_all_rgb
Start training | mode=fusion | files=98 | batches(train)=433 | device=cuda
[001] train=0.015615 | val=0.058171 | 1h08m47s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.015615, MAE=0.082087 | val: MSE=0.058171, MAE=0.183428 |
1h08m47s | LRs=[0.0002, 0.0002, 0.0002]
[002] train=0.009345 | val=0.018850 | 1h08m53s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.009345, MAE=0.062580 | val: MSE=0.018850, MAE=0.094432 |
1h08m53s | LRs=[0.0002, 0.0002, 0.0002]
[003] train=0.007281 | val=0.010709 | 1h08m32s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.007281, MAE=0.054365 | val: MSE=0.010709, MAE=0.058492 |
1h08m32s | LRs=[0.0002, 0.0002, 0.0002]
[004] train=0.006194 | val=0.009629 | 1h10m01s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.006194, MAE=0.049938 | val: MSE=0.009629, MAE=0.055487 |
1h10m01s | LRs=[0.0002, 0.0002, 0.0002]
[005] train=0.005331 | val=0.006924 | 1h11m23s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.005331, MAE=0.046413 | val: MSE=0.006924, MAE=0.046883 |
1h11m23s | LRs=[0.0002, 0.0002, 0.0002]
[006] train=0.004696 | val=0.006242 | 1h12m04s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.004696, MAE=0.043532 | val: MSE=0.006242, MAE=0.046125 |
1h12m04s | LRs=[0.0002, 0.0002, 0.0002]
[007] train=0.004209 | val=0.008768 | 1h11m03s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.004209, MAE=0.041444 | val: MSE=0.008768, MAE=0.051566 |
1h11m03s | LRs=[0.0002, 0.0002, 0.0002]
[008] train=0.003731 | val=0.005836 | 1h12m18s | LRs=[0.0002, 0.0002, 0.0002]

[008] train: MSE=0.003731, MAE=0.039114 | val: MSE=0.005836, MAE=0.040655 |
1h12m18s | LRs=[0.0002, 0.0002, 0.0002]
[009] train=0.003524 | val=0.006019 | 1h10m17s | LRs=[0.0002, 0.0002, 0.0002]

[009] train: MSE=0.003524, MAE=0.038214 | val: MSE=0.006019, MAE=0.040213 | 1h10m17s | LRs=[0.0002, 0.0002, 0.0002]

[010] train=0.003294 | val=0.010600 | 1h11m04s | LRs=[0.0002, 0.0002, 0.0002]

[010] train: MSE=0.003294, MAE=0.036968 | val: MSE=0.010600, MAE=0.056243 | 1h11m04s | LRs=[0.0002, 0.0002, 0.0002]

[011] train=0.003036 | val=0.006439 | 1h09m36s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.003036, MAE=0.035572 | val: MSE=0.006439, MAE=0.041776 | 1h09m36s | LRs=[0.0002, 0.0002, 0.0002]

[012] train=0.002800 | val=0.006534 | 1h15m43s | LRs=[0.0002, 0.0002, 0.0002]

[012] train: MSE=0.002800, MAE=0.034291 | val: MSE=0.006534, MAE=0.042014 | 1h15m43s | LRs=[0.0002, 0.0002, 0.0002]

[013] train=0.002578 | val=0.006307 | 1h09m40s | LRs=[0.0002, 0.0002, 0.0002]

[013] train: MSE=0.002578, MAE=0.032865 | val: MSE=0.006307, MAE=0.039335 | 1h09m40s | LRs=[0.0002, 0.0002, 0.0002]

[014] train=0.002454 | val=0.005806 | 1h07m09s | LRs=[0.0002, 0.0002, 0.0002]

[014] train: MSE=0.002454, MAE=0.032262 | val: MSE=0.005806, MAE=0.038509 | 1h07m09s | LRs=[0.0002, 0.0002, 0.0002]

[015] train=0.002210 | val=0.006239 | 1h07m35s | LRs=[0.0002, 0.0002, 0.0002]

[015] train: MSE=0.002210, MAE=0.030960 | val: MSE=0.006239, MAE=0.043128 | 1h07m35s | LRs=[0.0002, 0.0002, 0.0002]

[016] train=0.002150 | val=0.006718 | 1h10m26s | LRs=[0.0002, 0.0002, 0.0002]

[016] train: MSE=0.002150, MAE=0.030438 | val: MSE=0.006718, MAE=0.039869 | 1h10m26s | LRs=[0.0002, 0.0002, 0.0002]

[017] train=0.002064 | val=0.009576 | 1h10m18s | LRs=[0.0002, 0.0002, 0.0002]

[017] train: MSE=0.002064, MAE=0.029535 | val: MSE=0.009576, MAE=0.050089 | 1h10m18s | LRs=[0.0002, 0.0002, 0.0002]

[018] train=0.001960 | val=0.005575 | 1h10m29s | LRs=[0.0002, 0.0002, 0.0002]

[018] train: MSE=0.001960, MAE=0.029086 | val: MSE=0.005575, MAE=0.034818 | 1h10m29s | LRs=[0.0002, 0.0002, 0.0002]

[019] train=0.001822 | val=0.010800 | 1h11m41s | LRs=[0.0002, 0.0002, 0.0002]

[019] train: MSE=0.001822, MAE=0.027888 | val: MSE=0.010800, MAE=0.048148 | 1h11m41s | LRs=[0.0002, 0.0002, 0.0002]

[020] train=0.001727 | val=0.007233 | 1h12m18s | LRs=[0.0002, 0.0002, 0.0002]

[020] train: MSE=0.001727, MAE=0.027287 | val: MSE=0.007233, MAE=0.047867 | 1h12m18s | LRs=[0.0002, 0.0002, 0.0002]

[021] train=0.001664 | val=0.006973 | 1h04m09s | LRs=[0.0002, 0.0002, 0.0002]

[021] train: MSE=0.001664, MAE=0.026555 | val: MSE=0.006973, MAE=0.043177 | 1h04m09s | LRs=[0.0002, 0.0002, 0.0002]

[022] train=0.001624 | val=0.010365 | 1h06m01s | LRs=[0.0002, 0.0002, 0.0002]

[022] train: MSE=0.001624, MAE=0.026183 | val: MSE=0.010365, MAE=0.053291 | 1h06m01s | LRs=[0.0002, 0.0002, 0.0002]

[023] train=0.001603 | val=0.008994 | 1h06m02s | LRs=[0.0002, 0.0002, 0.0002]

[023] train: MSE=0.001603, MAE=0.026009 | val: MSE=0.008994, MAE=0.048710 | 1h06m02s | LRs=[0.0002, 0.0002, 0.0002]

[024] train=0.001436 | val=0.012851 | 1h01m32s | LRs=[0.0002, 0.0002, 0.0002]

[024] train: MSE=0.001436, MAE=0.024795 | val: MSE=0.012851, MAE=0.061505 | 1h01m32s | LRs=[0.0002, 0.0002, 0.0002]

[025] train=0.001476 | val=0.006643 | 1h12m38s | LRs=[0.0002, 0.0002, 0.0002]

[025] train: MSE=0.001476, MAE=0.024964 | val: MSE=0.006643, MAE=0.040019 | 1h12m38s | LRs=[0.0002, 0.0002, 0.0002]

[026] train=0.001410 | val=0.005950 | 59m08s | LRs=[0.0002, 0.0002, 0.0002]

Early stopping (no val improv. for 8 epochs). Best val=0.005575

Start training | mode=event | files=98 | batches(train)=433 | device=cuda

[001] train=0.016089 | val=0.054286 | 29m59s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.016089, MAE=0.083518 | val: MSE=0.054286, MAE=0.176297 | 29m59s | LRs=[0.0002, 0.0002, 0.0002]

[002] train=0.009885 | val=0.017554 | 30m06s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.009885, MAE=0.064437 | val: MSE=0.017554, MAE=0.086886 | 30m06s | LRs=[0.0002, 0.0002, 0.0002]

[003] train=0.007667 | val=0.013201 | 30m09s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.007667, MAE=0.056193 | val: MSE=0.013201, MAE=0.069793 | 30m09s | LRs=[0.0002, 0.0002, 0.0002]

[004] train=0.006484 | val=0.011454 | 31m28s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.006484, MAE=0.051490 | val: MSE=0.011454, MAE=0.067195 | 31m28s | LRs=[0.0002, 0.0002, 0.0002]

[005] train=0.005529 | val=0.011473 | 31m52s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.005529, MAE=0.047732 | val: MSE=0.011473, MAE=0.065295 | 31m52s | LRs=[0.0002, 0.0002, 0.0002]

[006] train=0.004875 | val=0.013747 | 31m58s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.004875, MAE=0.045085 | val: MSE=0.013747, MAE=0.065207 | 31m58s | LRs=[0.0002, 0.0002, 0.0002]

[007] train=0.004259 | val=0.010913 | 32m29s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.004259, MAE=0.042394 | val: MSE=0.010913, MAE=0.056564 | 32m29s | LRs=[0.0002, 0.0002, 0.0002]

[008] train=0.003872 | val=0.007476 | 41m34s | LRs=[0.0002, 0.0002, 0.0002]

[008] train: MSE=0.003872, MAE=0.040446 | val: MSE=0.007476, MAE=0.047944 | 41m34s | LRs=[0.0002, 0.0002, 0.0002]

[009] train=0.003722 | val=0.007594 | 39m15s | LRs=[0.0002, 0.0002, 0.0002]

[009] train: MSE=0.003722, MAE=0.039708 | val: MSE=0.007594, MAE=0.044816 | 39m15s | LRs=[0.0002, 0.0002, 0.0002]

[010] train=0.003265 | val=0.007768 | 31m03s | LRs=[0.0002, 0.0002, 0.0002]

[010] train: MSE=0.003265, MAE=0.037412 | val: MSE=0.007768, MAE=0.048112 | 31m03s | LRs=[0.0002, 0.0002, 0.0002]

[011] train=0.002956 | val=0.009719 | 30m25s | LRs=[0.0002, 0.0002, 0.0002]

[011] train: MSE=0.002956, MAE=0.035901 | val: MSE=0.009719, MAE=0.053392 | 30m25s | LRs=[0.0002, 0.0002, 0.0002]

[012] train=0.002985 | val=0.011272 | 30m19s | LRs=[0.0002, 0.0002, 0.0002]

[012] train: MSE=0.002985, MAE=0.035634 | val: MSE=0.011272, MAE=0.058946 | 30m19s | LRs=[0.0002, 0.0002, 0.0002]

[013] train=0.002590 | val=0.013969 | 30m17s | LRs=[0.0002, 0.0002, 0.0002]

[013] train: MSE=0.002590, MAE=0.033672 | val: MSE=0.013969, MAE=0.065707 | 30m17s | LRs=[0.0002, 0.0002, 0.0002]

[014] train=0.002522 | val=0.009705 | 30m09s | LRs=[0.0002, 0.0002, 0.0002]

[014] train: MSE=0.002522, MAE=0.033211 | val: MSE=0.009705, MAE=0.055793 | 30m09s | LRs=[0.0002, 0.0002, 0.0002]

[015] train=0.002358 | val=0.012602 | 29m18s | LRs=[0.0002, 0.0002, 0.0002]

[015] train: MSE=0.002358, MAE=0.032007 | val: MSE=0.012602, MAE=0.057693 | 29m18s | LRs=[0.0002, 0.0002, 0.0002]

[016] train=0.002106 | val=0.008480 | 28m44s | LRs=[0.0002, 0.0002, 0.0002]

Early stopping (no val improv. for 8 epochs). Best val=0.007476

Start training | mode=rgb | files=98 | batches(train)=433 | device=cuda

[001] train=0.022246 | val=0.019864 | 37m44s | LRs=[0.0002, 0.0002, 0.0002]

[001] train: MSE=0.022246, MAE=0.099195 | val: MSE=0.019864, MAE=0.094623 | 37m44s | LRs=[0.0002, 0.0002, 0.0002]

[002] train=0.018351 | val=0.016335 | 38m59s | LRs=[0.0002, 0.0002, 0.0002]

[002] train: MSE=0.018351, MAE=0.089402 | val: MSE=0.016335, MAE=0.081446 | 38m59s | LRs=[0.0002, 0.0002, 0.0002]

[003] train=0.016669 | val=0.014054 | 39m30s | LRs=[0.0002, 0.0002, 0.0002]

[003] train: MSE=0.016669, MAE=0.085023 | val: MSE=0.014054, MAE=0.072709 | 39m30s | LRs=[0.0002, 0.0002, 0.0002]

[004] train=0.015287 | val=0.013008 | 41m08s | LRs=[0.0002, 0.0002, 0.0002]

[004] train: MSE=0.015287, MAE=0.080661 | val: MSE=0.013008, MAE=0.069421 | 41m08s | LRs=[0.0002, 0.0002, 0.0002]

[005] train=0.014323 | val=0.012244 | 41m58s | LRs=[0.0002, 0.0002, 0.0002]

[005] train: MSE=0.014323, MAE=0.077413 | val: MSE=0.012244, MAE=0.066418 | 41m58s | LRs=[0.0002, 0.0002, 0.0002]

[006] train=0.013471 | val=0.011673 | 41m33s | LRs=[0.0002, 0.0002, 0.0002]

[006] train: MSE=0.013471, MAE=0.074897 | val: MSE=0.011673, MAE=0.064877 | 41m33s | LRs=[0.0002, 0.0002, 0.0002]

[007] train=0.012779 | val=0.011167 | 40m16s | LRs=[0.0002, 0.0002, 0.0002]

[007] train: MSE=0.012779, MAE=0.072765 | val: MSE=0.011167, MAE=0.063005 | 40m16s | LRs=[0.0002, 0.0002, 0.0002]

train: 33% | 142/433

[12:37<25:22, 5.23s/it, loss=0.0143, mae=0.0768]Traceback (most recent call last):