

Metriche di validazione

```
In [ ]: import pandas as pd
import numpy as np

In [ ]: path = 'Tabelle/'
conf06 = path + 'conf06/'
conf07 = path + 'conf07/'

In [ ]: hota_metrics_col = ['seq', 'HOTA__AUC', 'DetA__AUC', 'AssA__AUC', 'DetRe__AUC', 'DetPr__AUC', 'AssRe__AUC', 'AssPr__AUC', 'LocA__AUC', 'OWTA__AUC',
clear_metrics_col = ['seq', 'MOTA', 'MOTP', 'MODA', 'CLR_Re', 'CLR_Pr', 'MTR', 'PTR', 'MLR', 'sMOTA', 'CLR_TP', 'CLR_FN', 'CLR_FP', 'IDSW', 'MT', 'PT', 'ML',
count_col = ['seq', 'Dets', 'GT_Dets', 'IDs', 'GT_IDs']

In [ ]: def print_hota_metrics(data_path):
data = pd.read_csv(data_path, header=0)
hota_metrics = data[hota_metrics_col]
hota_metrics.loc[:, 'seq'] = hota_metrics['seq'].apply(lambda txt: txt.replace('-DPM', ''))
hota_metrics.iloc[:,1:] *= 100
return hota_metrics

In [ ]: def print_clear_metrics(data_path):
data = pd.read_csv(data_path, header=0)
clear_metrics = data[clear_metrics_col]
clear_metrics.loc[:, 'seq'] = clear_metrics['seq'].apply(lambda txt: txt.replace('-DPM', ''))
clear_metrics.iloc[:,1:10] *= 100
return clear_metrics

In [ ]: def print_count_metrics(data_path):
data = pd.read_csv(data_path, header=0)
count_metrics = data[count_col]
count_metrics.loc[:, 'seq'] = count_metrics['seq'].apply(lambda txt: txt.replace('-DPM', ''))
return count_metrics
```

Confidence: 0.6

Soglie: 0.3, 0.3

```
In [ ]: data_path = conf06 + '0303/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)

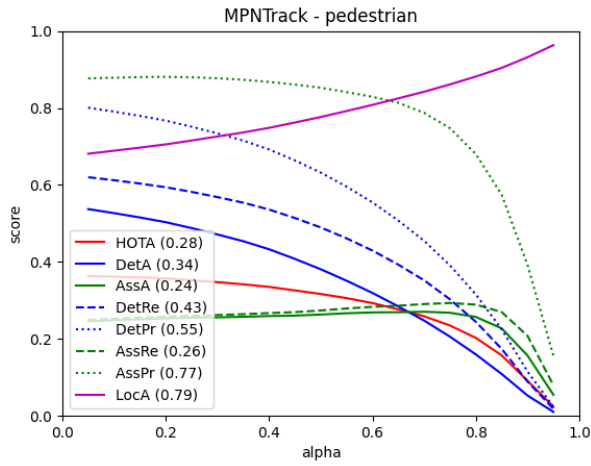
Out [ ]:
seq  HOTA__AUC  DetA__AUC  AssA__AUC  DetRe__AUC  DetPr__AUC  AssRe__AUC  AssPr__AUC  LocA__AUC  OWTA__AUC  HOTA(0)  LocA(0)  HOTALocA(0)
0  MOT17-02  18.376778  24.937813  14.764412  29.417430  53.520539  15.384268  71.915943  76.636518  20.169617  23.916228  63.030299  15.074470
1  MOT17-05  32.348426  36.183255  29.485096  48.639127  51.278287  31.617059  73.128191  77.498865  37.706291  46.107842  66.677499  30.743556
2  MOT17-09  34.830363  48.219931  25.586127  60.782802  63.626582  27.296530  78.456011  82.675771  39.288996  44.273376  75.722980  33.525120
3  MOT17-10  18.266002  32.586675  11.087435  39.916209  54.432736  11.992191  70.604402  76.211919  20.448157  24.700939  64.400919  15.907632
4  MOT17-11  40.551173  42.424594  39.389054  58.806140  56.357377  41.600827  84.504760  83.753654  47.950966  50.326906  74.695593  37.591981
5  COMBINED  27.921316  33.982343  24.151977  42.828157  55.301043  25.739456  76.568372  79.191582  31.619623  36.336469  68.115378  24.750723

In [ ]: print_clear_metrics(data_path)

Out [ ]:
seq  MOTA  MOTP  MODA  CLR_Re  CLR_Pr  MTR  PTR  MLR  sMOTA  CLR_TP  CLR_FN  CLR_FP  IDSW  MT  PT  ML  Frag
0  MOT17-02  9.994080  74.282006  14.783919  34.874334  63.448546  11.290323  41.935484  46.774194  1.025101  6480  12101  3733  890  7  26  29  1545.0
1  MOT17-05  15.570334  74.827807  23.232615  59.042938  62.246609  7.518797  77.443609  15.037594  0.707932  4084  2833  2477  530  10  103  20  630.0
2  MOT17-09  41.276995  81.056569  45.502347  70.516432  73.815608  38.461538  53.846154  7.692308  27.918764  3755  1570  1332  225  10  14  2  265.0
3  MOT17-10  10.966586  74.035438  22.112314  47.721785  65.077005  8.771930  78.947368  12.280702  -1.424166  6127  6712  3288  1431  5  45  7  1814.0
4  MOT17-11  21.958457  83.764744  24.417126  64.381094  61.700183  26.666667  38.666667  34.666667  11.506021  6075  3361  3771  232  20  29  26  326.0
5  COMBINED  16.219067  77.440426  22.449056  49.947267  64.493458  14.730878  61.473088  23.796034  4.951176  26521  26577  14601  3308  52  217  84  4580.0

In [ ]: print_count_metrics(data_path)

Out [ ]:
seq  Dets  GT_Dets  IDs  GT_IDs
0  MOT17-02  10213  18581  1073  62
1  MOT17-05  6561  6917  1349  133
2  MOT17-09  5087  5325  516  26
3  MOT17-10  9415  12839  2068  57
4  MOT17-11  9846  9436  1754  75
5  COMBINED  41122  53098  6760  353
```



Soglie: 0.3, 0.4

```
In [ ]: data_path = conf06 + '0304/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

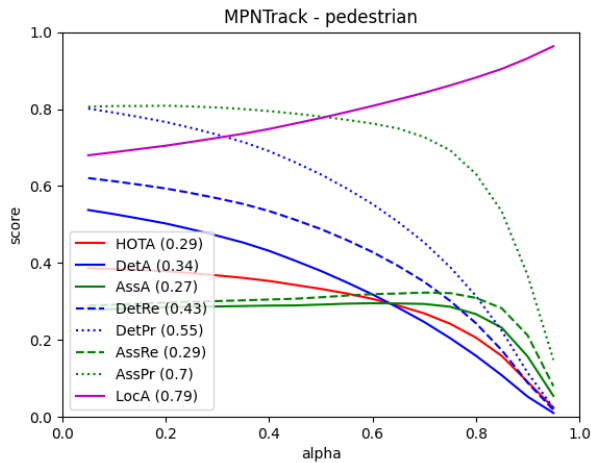
Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	20.008425	24.887270	17.263866	29.362195	53.425279	18.374225	65.543305	76.590101	21.939469	26.737857	62.888213	16.814960
1	MOT17-05	33.242425	35.981956	31.246933	48.444336	51.065144	36.218862	63.262226	77.445993	38.766699	47.869553	66.371016	31.771509
2	MOT17-09	36.776090	48.316223	28.410420	60.892513	63.678836	30.649510	71.891478	82.691570	41.466257	46.815250	75.807137	35.489301
3	MOT17-10	20.056452	32.493898	13.230752	39.830123	54.303807	14.314048	63.217022	76.169420	22.437526	27.690369	64.188945	17.774156
4	MOT17-11	41.869938	42.420431	41.866075	58.805024	56.350585	44.578176	82.119644	83.752464	49.485985	52.627326	74.678700	39.301403
5	COMBINED	29.326537	33.923085	26.506382	42.773442	55.219650	28.864561	70.479266	79.167763	33.197461	38.692396	67.987197	26.305875

```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	10.865938	74.262570	14.746246	34.852807	63.415590	11.290323	41.935484	46.774194	1.895721	6476	12105	3736	721	7	26	29	1545.0
1	MOT17-05	17.536504	74.844196	23.362730	59.115223	62.313319	8.270677	76.691729	15.037594	2.665594	4089	2828	2473	403	11	102	20	631.0
2	MOT17-09	42.422535	81.103205	45.746479	70.685446	73.919874	38.461538	53.846154	7.692308	29.065251	3764	1561	1328	177	10	14	2	265.0
3	MOT17-10	13.420048	74.047044	22.096737	47.721785	65.063184	8.771930	78.947368	12.280702	1.034834	6127	6712	3290	1114	5	45	7	1815.0
4	MOT17-11	22.498940	83.765535	24.406528	64.381094	61.693917	26.666667	38.666667	34.666667	12.047014	6075	3361	3772	180	20	29	26	324.0
5	COMBINED	17.584466	77.448895	22.471656	49.966100	64.505227	15.014164	61.189802	23.796034	6.316559	26531	26567	14599	2595	53	216	84	4580.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	10212	18581	545	62
1	MOT17-05	6562	6917	829	133
2	MOT17-09	5092	5325	339	26
3	MOT17-10	9417	12839	991	57
4	MOT17-11	9847	9436	1120	75
5	COMBINED	41130	53098	3824	353



Soglie: 0.3, 0.5

```
In [ ]: data_path = conf06 + '0305/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

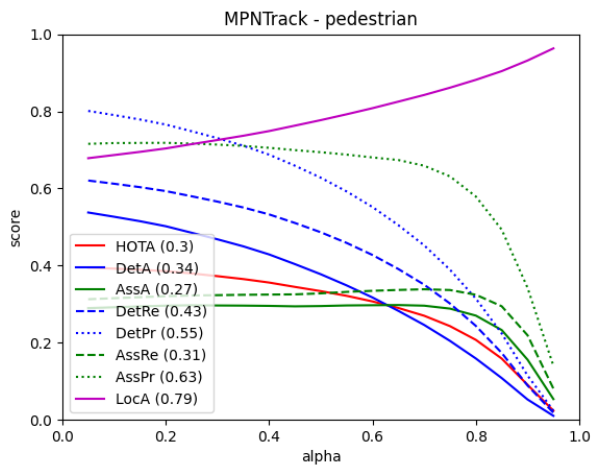
Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	19.567931	24.777677	16.556714	29.273820	53.233200	18.164830	58.114287	76.610177	21.467184	26.372436	62.741411	16.546438
1	MOT17-05	32.892561	35.853744	30.579506	48.330201	50.944834	38.636036	52.794529	77.449560	38.351601	48.280385	66.221262	31.971880
2	MOT17-09	36.374199	48.328745	27.749896	60.908327	63.695374	31.304705	63.715632	82.697138	41.002264	46.677101	75.753114	35.359357
3	MOT17-10	21.414323	32.390684	15.004578	39.731738	54.186933	16.467840	56.223653	76.157418	23.948091	29.932201	64.088217	19.183014
4	MOT17-11	42.777769	42.262951	43.825733	58.649963	56.190583	47.889420	76.963080	83.691643	50.578753	54.198178	74.448621	40.349796
5	COMBINED	29.609313	33.814511	27.030756	42.677889	55.089596	30.594704	63.133285	79.159047	33.523134	39.468046	67.847403	26.778044

```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	11.032775	74.255459	14.735482	34.863570	63.397925	11.290323	41.935484	46.774194	2.057309	6478	12103	3740	688	7	26	29	1547.0
1	MOT17-05	18.158161	74.848829	23.304901	59.086309	62.282841	6.766917	78.195489	15.037594	3.297263	4087	2830	2475	356	9	104	20	629.0
2	MOT17-09	42.854460	81.090212	45.821596	70.723005	73.959152	38.461538	53.846154	7.692308	29.480890	3766	1559	1326	158	10	14	2	266.0
3	MOT17-10	14.642885	74.038569	22.104525	47.713996	65.073295	8.771930	78.947368	12.280702	2.255649	6126	6713	3288	958	5	45	7	1812.0
4	MOT17-11	22.647308	83.769635	24.364137	64.370496	61.671236	26.666667	38.666667	34.666667	12.199742	6074	3362	3775	162	20	29	26	324.0
5	COMBINED	18.089194	77.445132	22.462240	49.966100	64.497387	14.447592	61.756374	23.796034	6.819406	26531	26567	14604	2322	51	218	84	4578.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	10218	18581	313	62
1	MOT17-05	6562	6917	409	133
2	MOT17-09	5092	5325	235	26
3	MOT17-10	9414	12839	502	57
4	MOT17-11	9849	9436	651	75
5	COMBINED	41135	53098	2110	353



Soglie: 0.4, 0.3

```
In [ ]: data_path = conf06 + '0403/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	19.312467	26.342888	15.661512	31.456298	52.990886	16.375635	71.160455	76.262951	21.358938	25.300849	62.484080	15.809003
1	MOT17-05	33.063579	38.238991	29.185514	52.319609	51.369019	31.711882	72.304879	77.538814	38.895672	47.268886	67.108712	31.721541
2	MOT17-09	37.418662	49.405571	28.793206	62.995799	63.221378	31.611004	76.922859	82.579388	42.449861	47.537641	75.588103	35.932801
3	MOT17-10	19.509423	34.989835	11.763544	43.643340	54.206911	12.692051	69.509362	76.134900	22.048257	26.716038	64.692445	17.283258
4	MOT17-11	40.743448	42.553945	39.631096	60.406952	55.029929	43.020679	82.388567	83.431648	48.758723	51.230201	74.192809	38.009126
5	COMBINED	28.828535	35.450673	24.731125	45.428711	54.727600	26.839736	75.184043	78.929051	32.930902	37.864783	67.878588	25.702080

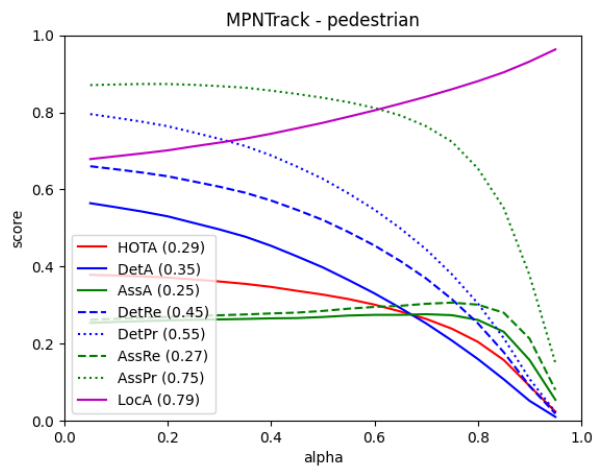
```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	10.817502	73.680225	15.531995	37.446854	63.082502	12.903226	48.387097	38.709677	0.961574	6958	11623	4072	876	8	30	24	1263.0
1	MOT17-05	18.895475	74.764337	25.459014	63.654764	62.498226	17.293233	69.924812	12.781955	2.831773	4403	2514	2642	454	23	93	17	434.0
2	MOT17-09	42.779343	80.912913	46.384977	73.014085	73.275537	46.153846	46.153846	7.692308	28.843081	3888	1437	1418	192	12	12	2	178.0
3	MOT17-10	14.518265	73.590378	24.433367	52.472934	65.173648	15.789474	71.929825	12.280702	0.660361	6737	6102	3600	1273	9	41	7	1380.0
4	MOT17-11	20.729123	83.384080	22.742688	66.256889	60.359143	28.000000	38.666667	33.333333	9.719931	6252	3184	4106	190	21	29	25	228.0
5	COMBINED	17.731365	76.972145	23.353045	53.180911	64.066612	20.679887	58.073654	21.246459	5.484942	28238	24860	15838	2985	73	205	75	3483.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	11030	18581	1046	62
1	MOT17-05	7045	6917	1235	133
2	MOT17-09	5306	5325	470	26
3	MOT17-10	10337	12839	1900	57
4	MOT17-11	10358	9436	1632	75
5	COMBINED	44076	53098	6283	353



Soglie: 0.4, 0.4

```
In [ ]: data_path = conf06 + '0404/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)
```

Out []:

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	21.183593	26.159684	18.653350	31.279830	52.717508	19.900970	64.675361	76.223274	23.418432	28.417972	62.250334	17.690282
1	MOT17-05	34.428988	38.126151	31.684628	52.223736	51.231255	36.543975	64.952484	77.493447	40.517023	49.339342	66.886584	33.001400
2	MOT17-09	38.519899	49.389704	30.495387	62.979985	63.205507	33.567030	74.154273	82.569464	43.693810	49.063961	75.584111	37.084559
3	MOT17-10	20.558406	34.803588	13.023010	43.443292	53.953223	14.138709	62.497155	75.995189	23.227364	28.616309	64.398716	18.428536
4	MOT17-11	41.905979	42.651402	41.699759	60.503447	55.117834	45.599697	80.795532	83.447188	50.104524	53.493296	74.286295	39.738187
5	COMBINED	30.098569	35.341383	26.875976	45.321659	54.596158	29.660641	70.190699	78.887820	34.382796	40.031945	67.733168	27.114905

```
In [ ]: print_clear_metrics(data_path)
```

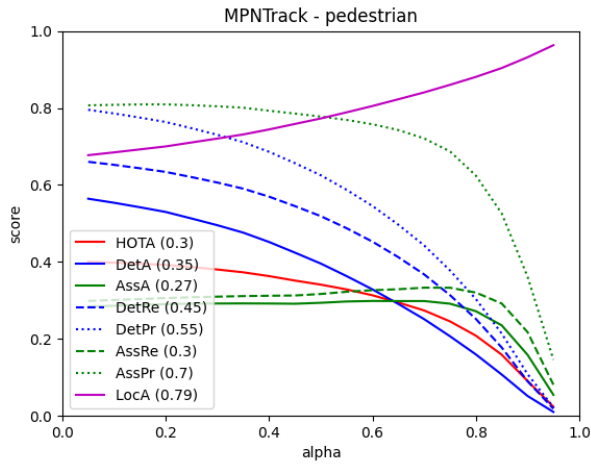
Out []:

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	11.414886	73.674257	15.569668	37.452236	63.120181	12.903226	46.774194	40.322581	1.555307	6959	11622	4066	772	8	29	25	1265.0
1	MOT17-05	20.066503	74.762060	25.545757	63.741506	62.530138	17.293233	69.924812	12.781955	3.979459	4409	2508	2642	379	23	93	17	435.0
2	MOT17-09	43.230047	80.920309	46.347418	72.995305	73.256691	42.307692	50.000000	7.692308	29.302768	3887	1438	1419	166	11	13	2	179.0
3	MOT17-10	16.169484	73.621643	24.503466	52.511878	65.215709	15.789474	71.929825	12.280702	2.317713	6742	6097	3596	1070	9	41	7	1377.0
4	MOT17-11	21.057652	83.384080	22.742688	66.256889	60.359143	28.000000	38.666667	33.333333	10.048460	6252	3184	4106	159	21	29	25	228.0
5	COMBINED	18.595804	76.977475	23.390712	53.201627	64.088661	20.396601	58.073654	21.529745	6.347446	28249	24849	15829	2546	72	205	76	3484.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	11025	18581	550	62
1	MOT17-05	7051	6917	799	133
2	MOT17-09	5306	5325	345	26
3	MOT17-10	10338	12839	1010	57
4	MOT17-11	10358	9436	1093	75
5	COMBINED	44078	53098	3797	353



Soglie: 0.4, 0.5

```
In [ ]: data_path = conf06 + '0405/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

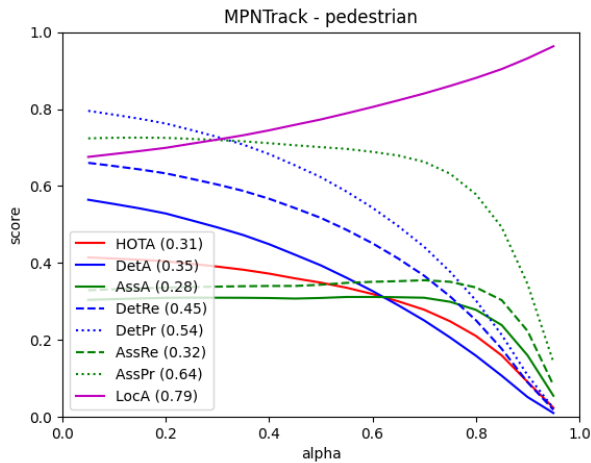
Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	22.118929	25.999093	20.457742	31.124040	52.469224	22.551556	56.231139	76.155094	24.465564	30.133885	61.890712	18.650076
1	MOT17-05	34.920619	37.947242	32.645007	52.050250	51.068309	40.579211	56.813480	77.467125	41.098719	50.781821	66.670988	33.856742
2	MOT17-09	38.629852	48.990798	30.883991	62.643934	62.880103	34.589831	66.973612	82.531165	43.869020	49.624934	75.314155	37.374600
3	MOT17-10	22.309535	34.874759	15.147414	43.524869	54.038854	16.711699	55.655506	76.047043	25.183081	31.213720	64.480487	20.126759
4	MOT17-11	42.372537	42.549349	42.691070	60.411972	55.023877	47.226296	77.885889	83.444651	50.674422	54.390678	74.180455	40.347253
5	COMBINED	30.839858	35.223492	28.206219	45.214311	54.466842	31.981694	63.659850	78.871927	35.232647	41.437166	67.566024	27.997446

```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	11.570960	73.648158	15.564286	37.441472	63.119216	12.903226	48.387097	38.709677	1.704442	6957	11624	4065	742	8	30	24	1266.0
1	MOT17-05	20.745988	74.762388	25.473471	63.698135	62.496454	17.293233	70.676692	12.030075	4.670100	4406	2511	2644	327	23	94	16	435.0
2	MOT17-09	43.417840	80.920407	46.328638	72.976526	73.251649	42.307692	50.000000	7.692308	29.494216	3886	1439	1419	155	11	13	2	178.0
3	MOT17-10	17.065192	73.608741	24.542410	52.543033	65.235470	15.789474	71.929825	12.280702	3.198424	6746	6093	3595	960	9	41	7	1380.0
4	MOT17-11	21.184824	83.383964	22.742688	66.267486	60.357143	28.000000	38.666667	33.333333	10.173795	6253	3183	4107	147	21	29	25	228.0
5	COMBINED	18.996949	76.968087	23.386945	53.199744	64.086392	20.396601	58.640227	20.963173	6.744030	28248	24850	15830	2331	72	207	74	3487.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	11022	18581	322	62
1	MOT17-05	7050	6917	420	133
2	MOT17-09	5305	5325	234	26
3	MOT17-10	10341	12839	508	57
4	MOT17-11	10360	9436	649	75
5	COMBINED	44078	53098	2133	353



Soglie: 0.5, 0.3

```
In [ ]: data_path = conf06 + '0503/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)

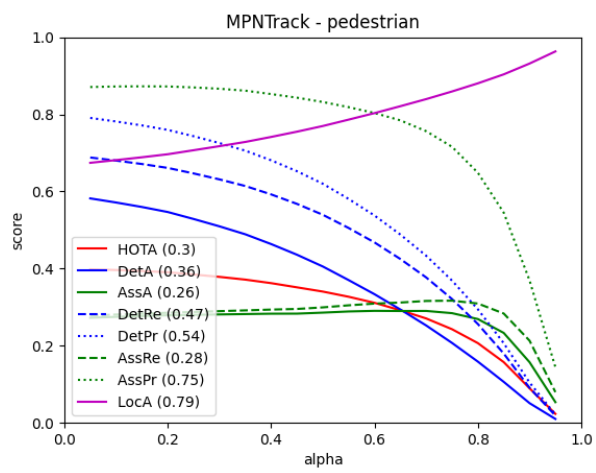
Out [ ]:
      seq  HOTA__AUC  DetA__AUC  AssA__AUC  DetRe__AUC  DetPr__AUC  AssRe__AUC  AssPr__AUC  LocA__AUC  OWTA__AUC  HOTA(0)  LocA(0)  HOTALocA(0)
0  MOT17-02    18.616059    27.147179    14.055431    32.750773    52.410826    14.646886    69.843279    76.020006    20.695546    24.934627    62.010945    15.462198
1  MOT17-05    35.399540    39.029244    32.749886    54.214255    50.992657    35.932385    71.713704    77.541868    41.960186    50.565105    67.173244    33.966221
2  MOT17-09    38.215180    49.528483    30.019203    63.719298    62.567815    32.082482    77.659925    82.337270    43.568635    48.688540    75.151990    36.590407
3  MOT17-10    20.871853    36.670397    12.803525    46.395235    53.809252    13.838983    68.412154    75.872312    23.765763    28.976367    64.316275    18.636520
4  MOT17-11    42.663683    42.268888    43.634433    61.258116    53.780385    46.455534    83.085232    83.206807    51.566959    54.517046    73.666637    40.160874
5  COMBINED    29.937389    36.185715    26.083443    47.017729    54.030805    28.049786    74.726302    78.671972    34.448604    39.821209    67.425382    26.849602
```

```
In [ ]: print_clear_metrics(data_path)

Out [ ]:
      seq  MOTA  MOTP  MODA  CLR_Re  CLR_Pr  MTR  PTR  MLR  sMOTA  CLR_TP  CLR_FN  CLR_FP  IDSW  MT  PT  ML  Frag
0  MOT17-02 10.882084 73.314478 15.580432 39.034498 62.466626 12.903226 48.387097 38.709677 0.465524 7253 11328 4358 873 8 30 24 1160.0
1  MOT17-05 20.529131 74.677074 26.051757 66.184762 62.251836 27.067669 62.406015 10.526316 3.769213 4578 2339 2776 382 36 83 14 342.0
2  MOT17-09 42.610329 80.750624 46.103286 73.971831 72.635073 46.153846 46.153846 7.692308 28.371213 3939 1386 1484 186 12 12 2 152.0
3  MOT17-10 16.808163 73.199792 25.640626 55.931147 64.869015 19.298246 70.175439 10.526316 1.818499 7181 5658 3889 1134 11 40 6 1180.0
4  MOT17-11 18.588385 83.176332 20.368800 67.136499 58.941198 32.000000 34.666667 33.333333 7.293563 6335 3101 4413 168 24 26 25 188.0
5  COMBINED 18.123093 76.632795 23.289013 55.154620 63.381379 25.779037 54.107649 20.113314 5.235000 29286 23812 16920 2743 91 191 71 3022.0
```

```
In [ ]: print_count_metrics(data_path)

Out [ ]:
      seq  Dets  GT_Dets  IDs  GT_IDs
0  MOT17-02 11611  18581  1005    62
1  MOT17-05 7354  6917  1108   133
2  MOT17-09 5423  5325  440    26
3  MOT17-10 11070 12839 1701    57
4  MOT17-11 10748  9436 1482    75
5  COMBINED 46206 53098 5736   353
```



Soglie: 0.5, 0.4

```
In [ ]: data_path = conf06 + '0504/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)

Out [ ]:
      seq  HOTA__AUC  DetA__AUC  AssA__AUC  DetRe__AUC  DetPr__AUC  AssRe__AUC  AssPr__AUC  LocA__AUC  OWTA__AUC  HOTA(0)  LocA(0)  HOTALocA(0)
0  MOT17-02    20.055888    27.146384    16.181802    32.754455    52.412205    17.151944    63.963708    76.035730    22.287077    27.027096    62.072148    16.776299
1  MOT17-05    36.111037    38.938727    34.098285    54.145013    50.886013    39.294964    64.704192    77.502735    42.813603    51.984039    67.005047    34.831930
2  MOT17-09    38.767287    49.370733    30.965184    63.565110    62.416414    33.337989    73.413084    82.249776    44.209609    49.613063    74.940722    37.180387
3  MOT17-10    21.801571    36.568318    13.930031    46.293161    53.666627    15.101539    62.108564    75.799215    24.820385    30.559858    64.141677    19.601605
4  MOT17-11    42.731385    42.261256    43.722043    61.258116    53.775382    47.222166    80.065921    83.222214    51.639837    55.131188    73.674499    40.617627
5  COMBINED    30.609715    36.133043    27.208841    46.969853    53.960606    29.791295    69.460428    78.645631    35.217343    41.061314    67.349572    27.654619
```

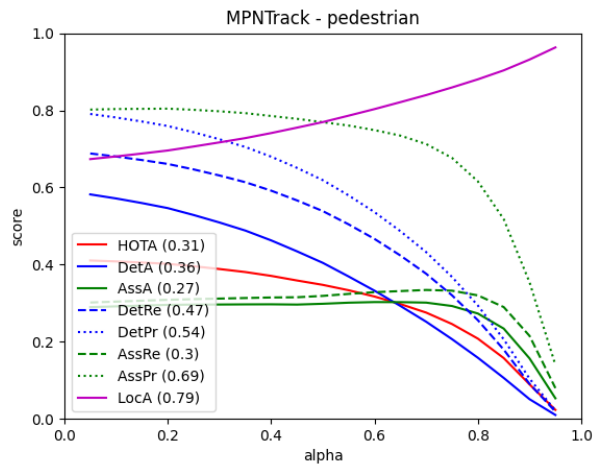
```
In [ ]: print_clear_metrics(data_path)

Out [ ]:
      seq  MOTA  MOTP  MODA  CLR_Re  CLR_Pr  MTR  PTR  MLR  sMOTA  CLR_TP  CLR_FN  CLR_FP  IDSW  MT  PT  ML  Frag
0  MOT17-02 11.382595 73.293390 15.618105 39.056025 62.495694 12.903226 48.387097 38.709677 0.952055 7257 11324 4355 787 8 30 24 1163.0
1  MOT17-05 21.006217 74.672787 26.051757 66.228134 62.241848 27.067669 62.406015 10.526316 4.232476 4581 2336 2779 349 36 83 14 342.0
2  MOT17-09 42.873239 80.750624 46.103286 73.971831 72.635073 46.153846 46.153846 7.692308 28.634123 3939 1386 1484 172 12 12 2 152.0
3  MOT17-10 17.672716 73.206764 25.570527 55.915570 64.821670 19.298246 70.175439 10.526316 2.691125 7179 5660 3896 1014 11 40 6 1178.0
4  MOT17-11 18.694362 83.177933 20.400593 67.157694 58.954321 32.000000 34.666667 33.333333 7.397049 6337 3099 4412 161 24 26 25 188.0
5  COMBINED 18.614637 76.628983 23.290896 55.167803 63.378697 25.779037 54.107649 20.113314 5.721360 29293 23805 16926 2483 91 191 71 3023.0
```

```
In [ ]: print_count_metrics(data_path)
```

Out[]:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	11612	18581	586	62
1	MOT17-05	7360	6917	787	133
2	MOT17-09	5423	5325	335	26
3	MOT17-10	11075	12839	968	57
4	MOT17-11	10749	9436	1068	75
5	COMBINED	46219	53098	3744	353



Soglie: 0.5, 0.5

```
In [ ]: data_path = conf06 + '0505/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)
```

Out[]:

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	19.498576	26.897027	15.241737	32.514821	52.024274	17.143503	54.961078	75.942658	21.665692	27.301896	61.613905	16.821764
1	MOT17-05	35.615129	38.661058	33.291221	53.856631	50.608112	42.261670	54.916515	77.405552	42.235077	52.261618	66.725379	34.871763
2	MOT17-09	37.953086	48.634667	30.077487	62.937485	61.811528	34.357011	64.777395	82.147301	43.377338	49.686244	74.208790	36.871560
3	MOT17-10	22.833487	36.437190	15.183573	46.179199	53.549019	16.865218	55.408653	75.808278	25.984561	32.389348	64.077449	20.754268
4	MOT17-11	42.998787	42.177498	44.285914	61.177796	53.704873	49.093231	75.723078	83.225781	51.962510	55.946998	73.627008	41.192100
5	COMBINED	30.568815	35.895446	27.180815	46.743658	53.703069	31.264833	62.034772	78.599008	35.180670	41.723386	67.070462	27.984067

```
In [ ]: print_clear_metrics(data_path)
```

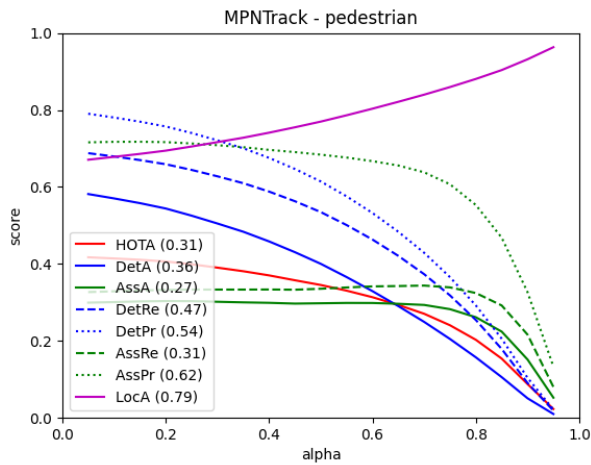
Out[]:

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	11.657069	73.283952	15.720360	39.109843	62.576423	12.903226	48.387097	38.709677	1.208465	7267	11314	4346	755	8	30	24	1162.0
1	MOT17-05	21.598959	74.643223	26.239699	66.329334	62.328488	27.819549	61.654135	10.526316	4.779978	4588	2329	2773	321	37	82	14	345.0
2	MOT17-09	43.098592	80.750677	46.084507	73.953052	72.630026	46.153846	46.153846	7.692308	28.863130	3938	1387	1484	159	12	12	2	151.0
3	MOT17-10	18.513903	73.178525	25.609471	55.923359	64.848266	19.298246	70.175439	10.526316	3.514433	7180	5659	3892	911	11	40	6	1181.0
4	MOT17-11	18.673167	83.190525	20.294616	67.104705	58.907805	32.000000	34.666667	33.333333	7.393218	6332	3104	4417	153	24	26	25	188.0
5	COMBINED	19.010132	76.614843	23.339862	55.190403	63.407404	26.062323	53.824363	20.113314	6.103770	29305	23793	16912	2299	92	190	71	3027.0

```
In [ ]: print_count_metrics(data_path)
```

Out[]:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	11613	18581	327	62
1	MOT17-05	7361	6917	425	133
2	MOT17-09	5422	5325	223	26
3	MOT17-10	11072	12839	513	57
4	MOT17-11	10749	9436	662	75
5	COMBINED	46217	53098	2150	353



Confidence: 0.7

Soglia: 0.3, 0.3

```
In [ ]: data_path = conf07 + '0303/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

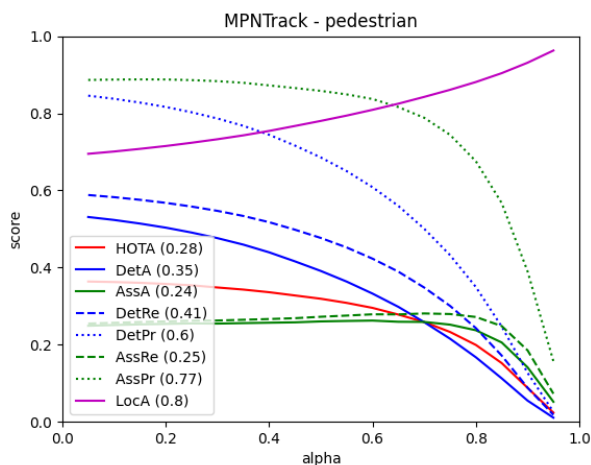
Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	18.320561	24.189055	15.124112	27.488464	57.667738	15.732384	71.955721	77.341077	19.717850	23.236497	65.029627	15.110607
1	MOT17-05	32.930589	37.653658	29.211684	48.022797	55.150869	32.452777	70.782182	77.644118	37.355345	47.475685	67.078046	31.845762
2	MOT17-09	36.687197	50.178678	27.219889	60.315295	67.773570	29.310987	78.249745	82.837163	40.401025	46.342444	76.464068	35.435318
3	MOT17-10	19.087700	32.598226	11.990453	38.057973	58.715010	12.914239	72.759783	76.610150	20.834332	25.783829	66.004754	17.018553
4	MOT17-11	39.170890	44.658398	34.773047	58.206533	61.121394	36.641141	84.947851	84.014624	44.884201	48.968450	75.541338	36.991422
5	COMBINED	27.940463	34.518964	23.570986	41.470092	59.630594	25.257892	76.935813	79.630282	30.855596	36.372156	69.493470	25.276273

```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	13.470750	74.874849	17.604004	32.635488	68.465620	9.677419	37.096774	53.225806	5.271034	6064	12517	2793	768	6	23	33	1391.0
1	MOT17-05	22.726616	74.868678	30.172040	58.623681	67.325253	8.270677	78.947368	12.781955	7.993710	4055	2862	1968	515	11	105	17	622.0
2	MOT17-09	46.816901	81.244499	50.760563	69.877934	78.518675	34.615385	57.692308	7.692308	33.710945	3721	1604	1018	210	9	15	2	261.0
3	MOT17-10	16.504401	74.257485	26.637589	45.727860	70.547945	8.771930	68.421053	22.807018	4.732899	5871	6968	2451	1301	5	39	13	1675.0
4	MOT17-11	30.256465	83.906084	32.471386	63.851208	67.048742	25.333333	36.000000	38.666667	19.980305	6025	3411	2961	209	19	27	29	318.0
5	COMBINED	21.737165	77.768270	27.392745	48.468869	69.694262	14.164306	59.206799	26.628895	10.961697	25736	27362	11191	3003	50	209	94	4267.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	8857	18581	861	62
1	MOT17-05	6023	6917	1138	133
2	MOT17-09	4739	5325	400	26
3	MOT17-10	8322	12839	1714	57
4	MOT17-11	8986	9436	1361	75
5	COMBINED	36927	53098	5474	353



Soglia: 0.3, 0.4


```
In [ ]: data_path = conf07 + '0304/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

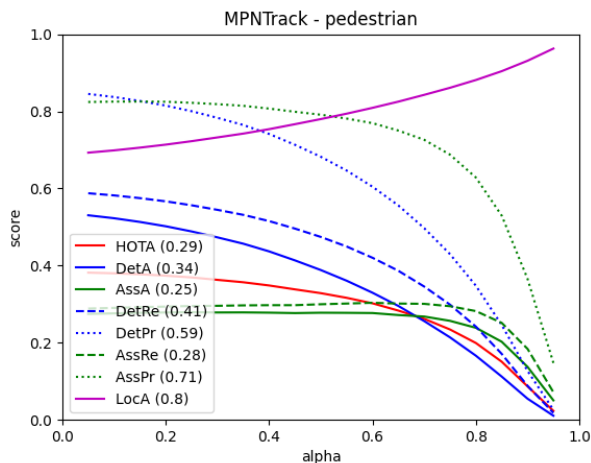
Out[]:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	18.519790	24.085084	15.156967	27.385076	57.522282	16.301111	66.826609	77.321435	19.907294	24.319714	64.949610	15.795560
1	MOT17-05	34.285424	37.496288	31.803574	47.903335	54.968044	36.061041	65.531996	77.618896	38.927919	49.747927	66.878801	33.270817
2	MOT17-09	37.860517	50.014461	29.040088	60.175933	67.602709	31.102555	74.351844	82.753630	41.701929	48.078374	76.224695	36.647594
3	MOT17-10	20.809672	32.284826	14.241367	37.767739	58.288256	15.384689	64.678300	76.488465	22.719383	28.584562	65.579477	18.745607
4	MOT17-11	39.807301	44.500537	35.929463	58.059838	60.974138	39.888268	79.250634	83.980985	45.607699	50.784218	75.409096	38.295920
5	COMBINED	28.818672	34.343548	25.031107	41.308127	59.412182	27.569959	71.246465	79.578275	31.820885	38.177340	69.284320	26.450910

```
In [ ]: print_clear_metrics(data_path)
```

Out[]:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	14.186535	74.867209	17.609386	32.608579	68.494235	9.677419	38.709677	51.612903	5.991089	6059	12522	2787	636	6	24	32	1389.0
1	MOT17-05	24.692786	74.876460	30.417811	58.782709	67.451891	8.270677	78.947368	12.781955	9.924488	4066	2851	1962	396	11	105	17	622.0
2	MOT17-09	47.586854	81.240722	50.779343	69.896714	78.523207	34.615385	57.692308	7.692308	34.474736	3722	1603	1018	170	9	15	2	261.0
3	MOT17-10	19.035750	74.242357	26.645377	45.720072	70.561366	8.771930	68.421053	22.807018	7.259338	5870	6969	2449	977	5	39	13	1678.0
4	MOT17-11	30.839339	83.923638	32.418398	63.819415	67.022816	25.333333	34.666667	40.000000	20.579498	6022	3414	2963	149	19	26	30	318.0
5	COMBINED	23.036649	77.766691	27.420995	48.474519	69.719378	14.164306	59.206799	26.628895	12.259160	25739	27359	11179	2328	50	209	94	4268.0

```
In [ ]: print_count_metrics(data_path)
```

Out[]:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	8846	18581	474	62
1	MOT17-05	6028	6917	705	133
2	MOT17-09	4740	5325	277	26
3	MOT17-10	8319	12839	885	57
4	MOT17-11	8985	9436	845	75
5	COMBINED	36918	53098	3186	353



Soglia: 0.3, 0.5

```
In [ ]: data_path = conf07 + '0305/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

Out[]:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	20.067562	23.897274	17.758924	27.217673	57.118995	19.778484	60.115713	77.227687	21.574329	27.093280	64.499098	17.474921
1	MOT17-05	35.142801	37.454007	33.413298	47.833332	54.933282	39.397088	59.807931	77.569341	39.886269	51.225677	66.784454	34.210788
2	MOT17-09	36.622838	48.869729	27.747078	59.145046	66.486673	32.360933	63.692482	82.229962	40.440818	48.148038	74.998554	36.110332
3	MOT17-10	22.388006	32.140236	16.444598	37.629181	58.081396	18.058657	58.061002	76.404620	24.440457	31.062007	65.281623	20.277782
4	MOT17-11	39.459304	44.593774	35.213572	58.149082	61.067862	39.861766	73.463334	84.019161	45.190971	50.561905	75.522097	38.185411
5	COMBINED	29.340411	34.148344	25.989857	41.119400	59.142343	29.631483	64.333478	79.469620	32.400594	39.456691	68.949162	27.205058

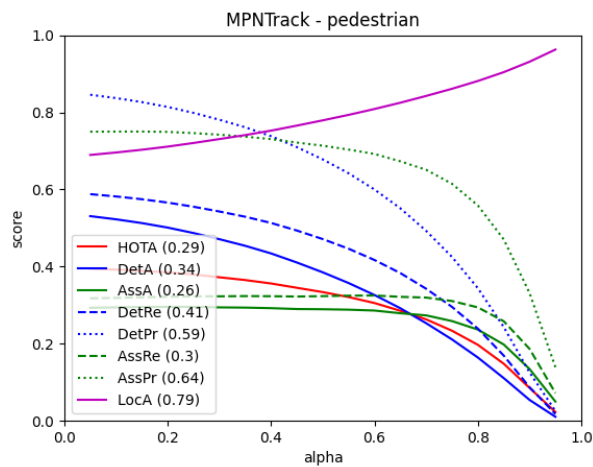
```
In [ ]: print_clear_metrics(data_path)
```

Out[]:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	14.423336	74.841819	17.684732	32.667779	68.556585	9.677419	38.709677	51.612903	6.204717	6070	12511	2784	606	6	24	32	1390.0
1	MOT17-05	25.589128	74.859638	30.374440	58.724881	67.441474	8.270677	78.947368	12.781955	10.825480	4062	2855	1961	331	11	105	17	619.0
2	MOT17-09	47.830986	81.230689	50.798122	69.877934	78.551826	34.615385	57.692308	7.692308	34.715379	3721	1604	1016	158	9	15	2	261.0
3	MOT17-10	20.095023	74.234823	26.606434	45.696705	70.533782	8.771930	68.421053	22.807018	8.321186	5867	6972	2451	836	5	39	13	1672.0
4	MOT17-11	30.945316	83.927494	32.397202	63.808817	67.011686	25.333333	34.666667	40.000000	20.689640	6021	3415	2964	137	19	26	30	318.0
5	COMBINED	23.535726	77.755030	27.430412	48.478285	69.726684	14.164306	59.206799	26.628895	12.751746	25741	27357	11176	2068	50	209	94	4260.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	8854	18581	285	62
1	MOT17-05	6023	6917	377	133
2	MOT17-09	4737	5325	189	26
3	MOT17-10	8318	12839	429	57
4	MOT17-11	8985	9436	521	75
5	COMBINED	36917	53098	1801	353



Soglia: 0.4, 0.3

```
In [ ]: data_path = conf07 + '0403/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)
```

Out []:

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	18.657244	25.662799	14.585160	29.410065	57.341912	15.182569	72.601494	77.025862	20.159468	24.445564	64.506483	15.768973
1	MOT17-05	35.204668	39.854339	31.576157	51.472725	55.345382	35.274504	70.964860	77.690893	40.200877	50.609721	67.619595	34.222088
2	MOT17-09	38.807328	51.682313	29.526856	62.643934	67.457826	31.295806	79.345469	82.676665	42.907148	49.512640	76.315901	37.786017
3	MOT17-10	20.769026	35.103255	13.115123	41.460025	58.720934	14.078345	71.909767	76.566599	22.806514	28.188250	66.305277	18.690298
4	MOT17-11	39.463225	44.878363	35.145232	59.648379	59.838625	37.081435	83.876415	83.712922	45.674150	49.847289	75.077326	37.424011
5	COMBINED	29.051677	36.112462	24.326961	43.904320	59.199867	26.051326	76.745137	79.391553	32.280561	38.286363	69.302207	26.533295

```
In [ ]: print_clear_metrics(data_path)
```

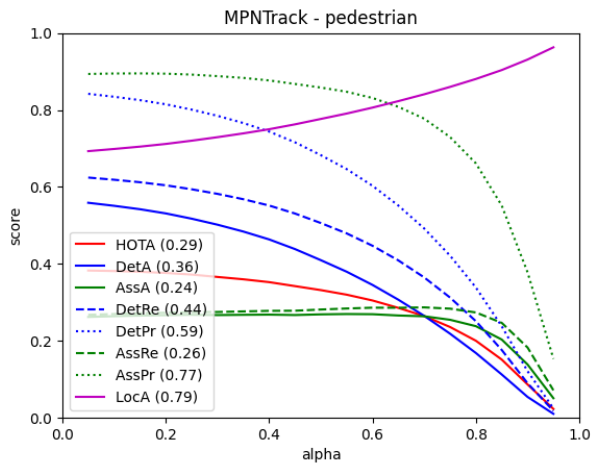
Out []:

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	15.122975	74.460841	18.933319	35.111135	68.457503	12.903226	40.322581	46.774194	6.155887	6524	12057	3006	708	8	25	29	1133.0
1	MOT17-05	26.731242	74.759151	32.832153	62.917450	67.651174	16.541353	70.676692	12.781955	10.850344	4352	2565	2081	422	22	94	17	423.0
2	MOT17-09	49.352113	80.878202	52.676056	72.769953	78.361982	38.461538	53.846154	7.692308	35.437189	3875	1450	1070	177	10	14	2	165.0
3	MOT17-10	20.165122	73.902636	29.340291	49.972739	70.777716	12.280702	70.175439	17.543860	7.123554	6416	6423	2649	1178	7	40	10	1303.0
4	MOT17-11	29.546418	83.571246	31.326833	65.504451	65.713374	28.000000	34.666667	37.333333	18.784853	6181	3255	3225	168	21	26	28	212.0
5	COMBINED	23.850239	77.345714	28.846661	51.504765	69.448183	19.263456	56.373938	24.362606	12.182202	27348	25750	12031	2653	68	199	86	3236.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9530	18581	825	62
1	MOT17-05	6433	6917	1043	133
2	MOT17-09	4945	5325	358	26
3	MOT17-10	9065	12839	1582	57
4	MOT17-11	9406	9436	1252	75
5	COMBINED	39379	53098	5060	353



Soglia: 0.4, 0.4

```
In [ ]: data_path = conf07 + '0404/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

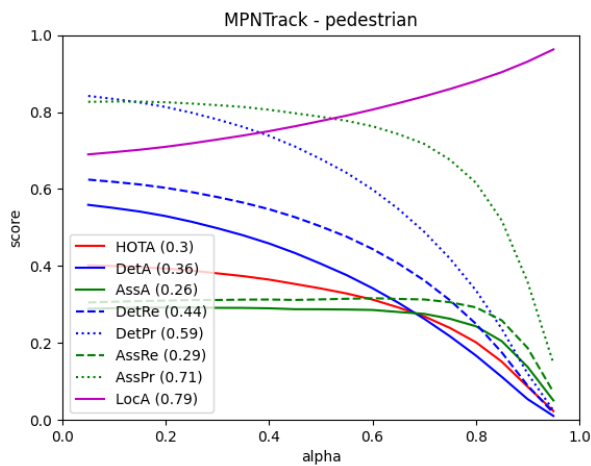
Out[]:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	20.055667	25.537650	16.777198	29.302428	57.114069	17.634239	68.788169	77.005691	21.668653	26.767585	64.378726	17.232631
1	MOT17-05	36.018734	39.577660	33.271634	51.226954	55.064000	38.616836	64.491376	77.626923	41.172739	52.265779	67.294230	35.171854
2	MOT17-09	39.815109	51.198929	31.346048	62.255498	67.025986	34.435940	73.034912	82.553287	44.084259	51.256158	75.810283	38.857438
3	MOT17-10	22.227163	34.768427	15.030034	41.166102	58.304642	16.198884	65.192348	76.465525	24.418497	30.767917	65.804069	20.246541
4	MOT17-11	39.930624	44.781345	35.942823	59.553557	59.749853	40.360985	77.361929	83.684223	46.196498	51.490455	74.903794	38.568304
5	COMBINED	29.999476	35.890123	25.960932	43.707762	58.927350	28.849006	70.876963	79.334461	33.341541	40.177952	68.997985	27.721978

```
In [ ]: print_clear_metrics(data_path)
```

Out[]:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	15.634250	74.445551	18.917173	35.111135	68.435959	12.903226	40.322581	46.774194	6.661793	6524	12057	3009	610	8	25	29	1134.0
1	MOT17-05	27.844441	74.752392	32.832153	62.931907	67.645688	16.541353	70.676692	12.781955	11.955640	4353	2564	2082	345	22	94	17	421.0
2	MOT17-09	49.633803	80.878202	52.657277	72.769953	78.346138	38.461538	53.846154	7.692308	35.718880	3875	1450	1071	161	10	14	2	165.0
3	MOT17-10	22.018849	73.913593	29.433757	50.019472	70.843905	12.280702	71.929825	15.789474	8.970566	6422	6417	2643	952	7	41	9	1305.0
4	MOT17-11	29.970326	83.580009	31.422213	65.546842	65.762892	29.333333	33.333333	37.333333	19.207541	6185	3251	3220	137	22	25	28	212.0
5	COMBINED	24.725978	77.345605	28.878677	51.525481	69.467296	19.546742	56.373938	24.079320	13.053193	27359	25739	12025	2205	69	199	85	3237.0

```
In [ ]: print_count_metrics(data_path)
```

Out[]:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9533	18581	477	62
1	MOT17-05	6435	6917	685	133
2	MOT17-09	4946	5325	270	26
3	MOT17-10	9065	12839	882	57
4	MOT17-11	9405	9436	841	75
5	COMBINED	39384	53098	3155	353



Soglia: 0.4, 0.5

```
In [ ]: data_path = conf07 + '0405/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)

Out [ ]:
```

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	20.296903	25.383775	17.198660	29.152020	56.814945	19.289419	59.093856	76.877879	21.931676	27.408353	64.010221	17.544147
1	MOT17-05	36.118082	39.399060	33.588570	51.041294	54.864434	41.072226	57.764669	77.519348	41.300618	52.730755	67.066821	35.364841
2	MOT17-09	40.261234	51.116259	32.033604	62.189276	66.968229	35.903188	68.421801	82.539508	44.568180	52.573373	75.657539	39.775720
3	MOT17-10	23.610367	34.631163	16.938441	41.022624	58.101431	18.735770	57.657363	76.350886	25.934799	32.986867	65.556446	21.625017
4	MOT17-11	42.220563	44.884187	40.163001	59.656188	59.840097	45.512734	75.333770	83.713033	48.847713	54.356759	75.013569	40.774945
5	COMBINED	30.979879	35.787539	27.807487	43.607847	58.789658	31.875811	64.782033	79.271488	34.444295	41.693394	68.814763	28.691210

```
In [ ]: print_clear_metrics(data_path)

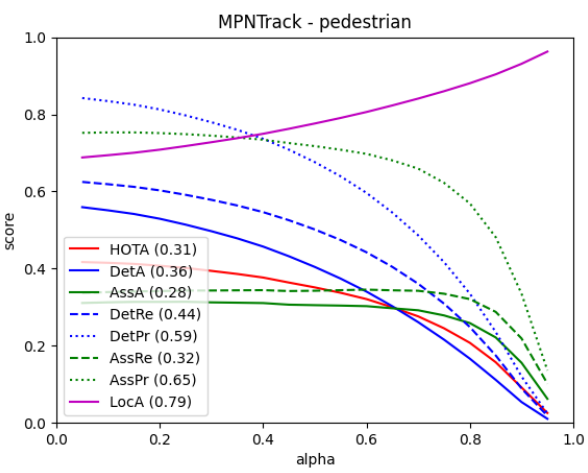
Out [ ]:
```

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	15.844142	74.444217	18.944083	35.127281	68.460248	12.903226	40.322581	46.774194	6.867090	6527	12054	3007	576	8	25	29	1135.0
1	MOT17-05	28.437184	74.729817	32.803238	62.917450	67.630148	16.541353	70.676692	12.781955	12.537829	4352	2565	2083	302	22	94	17	425.0
2	MOT17-09	49.765258	80.881231	52.638498	72.751174	78.341759	38.461538	53.846154	7.692308	35.856130	3874	1451	1071	153	10	14	2	166.0
3	MOT17-10	22.821092	73.913751	29.355869	49.980528	70.788748	12.280702	70.175439	17.543860	9.783047	6417	6422	2648	839	7	40	10	1301.0
4	MOT17-11	30.097499	83.582288	31.401017	65.546842	65.748910	29.333333	33.333333	37.333333	19.336207	6185	3251	3222	123	22	25	28	212.0
5	COMBINED	25.106407	77.342952	28.859844	51.517948	69.453613	19.546742	56.090652	24.362606	13.433961	27355	25743	12031	1993	69	198	86	3239.0

```
In [ ]: print_count_metrics(data_path)

Out [ ]:
```

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9534	18581	302	62
1	MOT17-05	6435	6917	373	133
2	MOT17-09	4945	5325	192	26
3	MOT17-10	9065	12839	445	57
4	MOT17-11	9407	9436	519	75
5	COMBINED	39386	53098	1831	353



Soglia: 0.5, 0.3

```
In [ ]: data_path = conf07 + '0503/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)

Out [ ]:
```

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	18.509639	26.511606	13.899187	30.547617	57.034291	14.540895	70.326964	76.779370	20.061840	24.521822	64.265137	15.758983
1	MOT17-05	37.203291	40.891962	34.343449	53.413786	55.069781	38.788783	70.333045	77.640440	42.722362	53.772426	67.658665	36.381706
2	MOT17-09	39.726461	51.984422	30.735594	63.391154	67.015663	32.788545	76.970898	82.530160	44.050294	51.126402	76.011812	38.862105
3	MOT17-10	21.917501	36.764284	13.958279	43.894630	58.315724	15.000700	69.794555	76.366616	24.214572	29.922315	65.988128	19.745176
4	MOT17-11	40.255878	44.843540	36.472778	60.550300	58.811388	40.300429	81.033312	83.493222	46.927746	51.932352	74.658456	38.771893
5	COMBINED	29.902689	36.966174	25.101172	45.379150	58.659155	27.474271	74.581445	79.158767	33.383557	39.957694	68.975366	27.560965

```
In [ ]: print_clear_metrics(data_path)

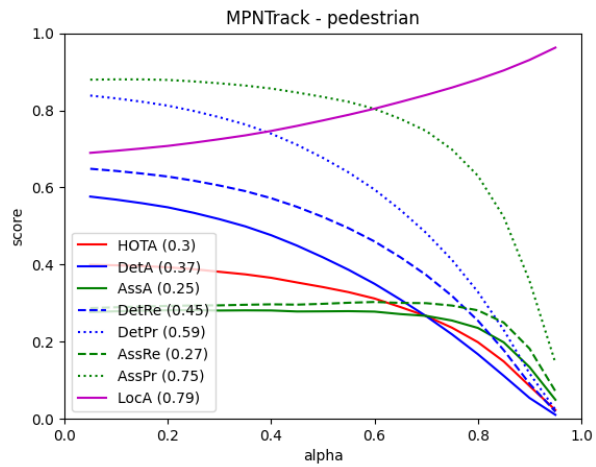
Out [ ]:
```

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	15.639632	74.073664	19.460739	36.510414	68.167203	14.516129	40.322581	45.161290	6.173819	6784	11797	3168	710	9	25	28	1036.0
1	MOT17-05	28.769698	74.627262	33.873066	65.432991	67.461619	24.060150	63.909774	12.030075	12.167556	4526	2391	2183	353	32	85	16	324.0
2	MOT17-09	49.690141	80.819545	52.751174	73.671362	77.883661	46.153846	46.153846	7.692308	35.559638	3923	1402	1114	163	12	12	2	144.0
3	MOT17-10	22.797726	73.560763	30.812369	53.041514	70.467715	14.035088	70.175439	15.789474	8.773954	6810	6029	2854	1029	8	40	9	1100.0
4	MOT17-11	27.871980	83.407207	29.514625	66.235693	64.333505	32.000000	33.333333	34.666667	16.881628	6250	3186	3465	155	24	25	26	175.0
5	COMBINED	24.669479	77.035933	29.208256	53.284493	68.877961	24.079320	52.974504	22.946176	12.433192	28293	24805	12784	2410	85	187	81	2779.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9952	18581	799	62
1	MOT17-05	6709	6917	941	133
2	MOT17-09	5037	5325	332	26
3	MOT17-10	9664	12839	1408	57
4	MOT17-11	9715	9436	1115	75
5	COMBINED	41077	53098	4595	353



Soglia: 0.5, 0.4

```
In [ ]: data_path = conf07 + '0504/' + 'pedestrian_detailed.csv'

In [ ]: print_hota_metrics(data_path)
```

Out []:

	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	20.341810	26.383310	16.911603	30.428650	56.806464	18.225601	66.367874	76.716187	22.059225	27.242599	64.080612	17.457224
1	MOT17-05	36.837649	40.787126	33.733613	53.333891	54.979214	39.860446	63.544853	77.652944	42.318365	53.624839	67.571331	36.235018
2	MOT17-09	40.552277	51.672783	32.210293	63.138127	66.748169	35.177121	71.854096	82.459198	45.009068	52.387944	75.705288	39.660444
3	MOT17-10	23.368682	36.676611	15.772224	43.817972	58.201836	17.030128	63.424507	76.326216	25.807112	32.247588	65.822016	21.226013
4	MOT17-11	40.593236	44.791776	37.095073	60.500658	58.763171	41.161765	79.218539	83.479566	47.318292	52.717141	74.578089	39.315437
5	COMBINED	30.682762	36.848425	26.469510	45.274378	58.518024	29.480565	69.974922	79.124009	34.263110	41.281105	68.819135	28.409300

```
In [ ]: print_clear_metrics(data_path)
```

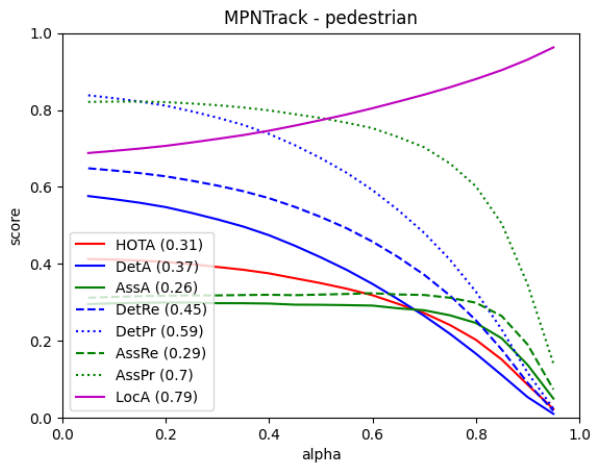
Out []:

	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	16.027124	74.058412	19.466121	36.515796	68.170401	14.516129	40.322581	45.161290	6.554347	6785	11796	3168	639	9	25	28	1037.0
1	MOT17-05	29.275698	74.627092	33.945352	65.476363	67.496274	24.060150	63.909774	12.030075	12.662440	4529	2388	2181	323	32	85	16	324.0
2	MOT17-09	49.896714	80.819545	52.751174	73.671362	77.883661	46.153846	46.153846	7.692308	35.766211	3923	1402	1114	152	12	12	2	144.0
3	MOT17-10	24.004985	73.554623	30.874679	53.080458	70.504862	14.035088	70.175439	15.789474	9.967658	6815	6024	2851	882	8	40	9	1101.0
4	MOT17-11	28.073336	83.398067	29.535820	66.246291	64.343798	33.333333	32.000000	34.666667	17.075171	6251	3185	3464	138	25	24	26	175.0
5	COMBINED	25.219406	77.028003	29.238389	53.303326	68.895597	24.362606	52.691218	22.946176	12.974567	28303	24795	12778	2134	86	186	81	2781.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:

	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9953	18581	485	62
1	MOT17-05	6710	6917	665	133
2	MOT17-09	5037	5325	267	26
3	MOT17-10	9666	12839	818	57
4	MOT17-11	9715	9436	809	75
5	COMBINED	41081	53098	3044	353



Soglia: 0.5, 0.5

```
In [ ]: data_path = conf07 + '0505/' + 'pedestrian_detailed.csv'
```

```
In [ ]: print_hota_metrics(data_path)
```

Out []:	seq	HOTA__AUC	DetA__AUC	AssA__AUC	DetRe__AUC	DetPr__AUC	AssRe__AUC	AssPr__AUC	LocA__AUC	OWTA__AUC	HOTA(0)	LocA(0)	HOTALocA(0)
0	MOT17-02	19.033069	26.322735	14.636892	30.375114	56.695128	16.635195	55.636670	76.693402	20.626183	25.969882	63.980427	16.615642
1	MOT17-05	36.423777	40.662693	33.035464	53.215191	54.816005	41.894836	56.084586	77.558559	41.848751	53.635756	67.392615	36.146539
2	MOT17-09	40.062818	51.561245	31.492131	63.045219	66.649948	35.580004	64.949656	82.420411	44.476513	52.164976	75.542908	39.406940
3	MOT17-10	23.611935	36.474254	16.116036	43.647439	57.957335	17.873582	56.309767	76.271721	26.082613	33.082072	65.524774	21.676953
4	MOT17-11	43.183118	44.759895	42.058231	60.475558	58.738792	47.705035	74.593073	83.492000	50.356605	56.308044	74.535680	41.969584
5	COMBINED	31.010722	36.745664	27.157227	45.185169	58.388506	31.512152	62.579031	79.091630	34.645475	42.053390	68.663252	28.875225

```
In [ ]: print_clear_metrics(data_path)
```

Out []:	seq	MOTA	MOTP	MODA	CLR_Re	CLR_Pr	MTR	PTR	MLR	sMOTA	CLR_TP	CLR_FN	CLR_FP	IDSW	MT	PT	ML	Frag
0	MOT17-02	16.306980	74.072168	19.444594	36.510414	68.146660	14.516129	40.322581	45.161290	6.840622	6784	11797	3171	583	9	25	28	1036.0
1	MOT17-05	29.969640	74.626506	34.104381	65.592020	67.565153	24.060150	63.909774	12.030075	13.326653	4537	2380	2178	286	32	85	16	325.0
2	MOT17-09	49.971831	80.822522	52.713615	73.652582	77.863808	46.153846	46.153846	7.692308	35.847123	3922	1403	1115	146	12	12	2	145.0
3	MOT17-10	24.799439	73.586369	30.866890	53.088247	70.493329	14.035088	73.684211	12.280702	10.776906	6816	6023	2853	779	8	42	7	1099.0
4	MOT17-11	28.285290	83.343904	29.684188	66.320475	64.415852	33.333333	32.000000	34.666667	17.238888	6258	3178	3457	132	25	24	26	176.0
5	COMBINED	25.645034	77.028033	29.272289	53.329692	68.912901	24.362606	53.257790	22.379603	13.394155	28317	24781	12774	1926	86	188	79	2781.0

```
In [ ]: print_count_metrics(data_path)
```

Out []:	seq	Dets	GT_Dets	IDs	GT_IDs
0	MOT17-02	9955	18581	285	62
1	MOT17-05	6715	6917	369	133
2	MOT17-09	5037	5325	195	26
3	MOT17-10	9669	12839	439	57
4	MOT17-11	9715	9436	509	75
5	COMBINED	41091	53098	1797	353

