| | MegaDepth | | | | | • | | ScanNet | | | | Pl | anar | | • | | IM | IC PhotoTo | urism | | |
|--|----------------|-----------------------|----------------|-----------------------------------|-----------------------------------|----------------|----------------|----------------|-----------------------------------|-----------------------------------|----------------|----------------|----------------|------------------------------|----------------|----------------|----------------|-----------------------------------|-----------------------------------|----------------------------|----------------------------|
| Pipeline | Filtered | Precision | Recall | $\mathrm{AUC}^F_{\measuredangle}$ | $\mathrm{AUC}^E_{\measuredangle}$ | Filtered | Precision | Recall | $\mathrm{AUC}^F_{\measuredangle}$ | $\mathrm{AUC}^E_{\measuredangle}$ | Filtered | Precision | Recall | $\mathrm{AUC}_{\square}^{H}$ | Filtered | Precision | Recall | $\mathrm{AUC}^F_{\measuredangle}$ | $\mathrm{AUC}^E_{\measuredangle}$ | AUC_{\square}^F | AUC_{\square}^E |
| LoFTR | 0.00 | 82.27 | 99.95 | 16.00 | 56.97 | 0.00 | 58.84 | 98.82 | 2.40 | 36.12 | 0.00 | 60.29 | 92.10 | 40.09 | 0.00 | 79.88 | 99.95 | 15.36 | 62.72 | 5.81 | 32.81 |
| $+MAGSAC_{\uparrow}$ | 42.45 | 90.59 | 64.37 | 54.87 | 61.80 | 48.83 | 69.72 | 59.54 | 30.36 | 35.64 | 80.21 | 74.42 | 23.88 | 41.00 | 47.20 | 89.44 | 60.07 | 51.94 | 66.51 | 27.36 | 36.60 |
| $+MAGSAC_{\downarrow}$ | 50.68 | 91.20 | 55.36 | 56.05 | 62.78 | 56.06 | 69.88 | 51.12 | 30.27 | 36.03 | 85.77 | 74.04 | 16.84 | 39.23 | 55.66 | 89.91 | 50.65 | 52.85 | 67.02 | 27.90 | 36.98 |
| +ACNe | 41.70 | 85.75 | 61.20 | 25.89 | 43.29 | 50.04 | 65.47 | 55.50 | 7.93 | 27.50 | 52.17 | 64.56 | 50.85 | 39.06 | 42.03 | 85.12 | 62.27 | 25.51 | 51.54 | 10.31 | 23.90 |
| $+ MAGSAC_{\uparrow}$ | 62.94 | 90.28 | 41.26 | 35.99 | 48.09 | 66.65 | 69.38 | 38.81 | 18.14 | 27.84 | 86.80 | 73.54 | 15.70 | 33.83 | 65.51 | 90.07 | 39.64 | 38.24 | 56.05 | 17.03 | 26.62 |
| $+MAGSAC_{\downarrow}$ | 67.88 | 90.77 | 35.81 | 36.64 | 48.89 | 71.02 | 69.51 | 33.71 | 18.41 | 27.40 | 90.19 | 73.73 | 11.46 | 32.53 | 70.70 | 90.46 | 33.75 | 38.57 | 56.05 | 17.25 | 26.85 |
| +AdaLAM | 0.00 | 82.27 | 99.95 | 16.00 | 56.97 | 0.00 | 58.84 | 98.82 | 2.40 | 36.12 | 0.00 | 60.29 | 92.30 | 40.13 | 0.00 | 79.88 | 99.95 | 15.36 | 62.69 | 5.82 | 32.88 |
| +MAGSAC _↑ | 42.45 | 90.59 | 64.37 | 54.87 | 61.80 | 48.83 | 69.72 | 59.54 | 30.36 | 35.64 | 80.21 | 74.42 | 23.88 | 41.00 | 47.20 | 89.44 | 60.07 | 51.94 | 66.51 | 27.36 | 36.60 |
| $+MAGSAC_{\downarrow}$ | 50.68 | 91.20 | 55.36 | 56.05 | 62.78 | 56.06 | 69.88 | 51.12 | 30.27 | 36.03 | 85.77 | 74.04 | 16.84 | 39.23 | 55.66 | 89.91 | 50.65 | 52.85 | 67.02 | 27.90 | 36.98 |
| +CC | 18.43 | 84.61 | 85.01 | 35.38 | 48.06 | 27.41 | 66.75 | 80.09 | 14.31 | 31.16 | 28.15 | 49.93 | 70.97 | 42.70 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| +MAGSAC _↑ | 49.51 | 89.56 | 56.25 | 42.76 | 54.29 | 54.21 | 70.16 | 53.42 | 25.19 | 32.34 | 85.16 | 58.09 | 18.13 | 30.00 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| $+MAGSAC_{\downarrow}$ | 56.30 | 90.07 | 48.79 | 43.95 | 55.27 | 60.40 | 70.29 | 46.18 | 25.35 | 31.41 | 89.12 | 58.30 | 13.35 | 28.94 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| +CLNet | 19.18 | 85.42 | 83.88 | 20.50 | 45.60 | 50.68 | 67.83 | 56.28 | 4.55 | 24.98 | 30.33 | 63.87 | 73.82 | 50.51 | 30.08 | 85.12 | 74.48 | 18.34 | 50.34 | 7.56 | 23.41 |
| +MAGSAC↑ | 50.24 | 90.50 | 55.30 | 33.70 | 51.06 | 64.14 | 70.13 | 41.69 | 12.43 | 23.94 | 80.58 | 71.66 | 22.66 | 38.75 | 58.35 | 89.74 | 47.20 | 31.17 | 54.99 | 14.02 | 26.57 |
| $+MAGSAC_{\downarrow}$ | 57.03 | 90.96 | 47.84 | 34.70 | 52.52 | 68.71 | 70.18 | 36.35 | 12.80 | 23.90 | 86.17 | 71.95 | 16.10 | 37.22 | 64.57 | 90.12 | 40.25 | 31.74 | 55.34 | 14.29 | 26.81 |
| +ConvMatch | 75.11 | 86.01 | 26.71 | 19.28 | 28.97 | 77.09 | 66.71 | 29.16 | 7.55 | 18.21 | 73.82 | 63.75 | 27.60 | 28.98 | 74.21 | 85.78 | 28.97 | 22.17 | 36.68 | 8.47 | 15.07 |
| +MAGSAC↑ | 82.85 | 87.69 | 19.15 | 21.33 | 30.11 | 83.61 | 66.57 | 21.02 | 9.24 | 17.75 | 93.07 | 70.99 | 8.30 | 24.13 | 83.19 | 87.56 | 19.75 | 24.01 | 39.23 | 9.64 | 16.43 |
| +MAGSAC↓ | 85.19 | 88.03 | 16.58 | 21.22 | 31.50 | 85.57 | 66.68 | 18.39 | 9.98 | 18.75 | 94.86 | 71.24 | 5.92 | 23.68 | 85.76 | 87.87 | 16.77 | 24.15 | 39.51 | 9.71 | 16.55 |
| +DeMatch | 62.46 | 86.21 | 39.81 | 22.54 | 33.88 | 65.80 | 67.56 | 40.23 | 7.00 | 21.59 | 69.06 | 63.78 | 32.65 | 31.80 | 63.83 | 85.42 | 39.46 | 23.48 | 40.36 | 8.96 | 17.18 |
| +MAGSAC↑ +MAGSAC⊥ | 74.70 | 89.46 | 28.00 | 26.16 | 37.33 | 75.20 | 69.53 | 29.48 | 10.74 | 21.13 | 90.93 | 71.76 | 10.59 | 28.14 | 76.79 | 88.86 | 26.54 | 27.95 | 43.11 | 11.34 | 18.46 |
| | 78.01 | 89.85 | 24.38 | 26.19 | 38.22 | 78.30 | 69.56 | 25.71 | 11.16 | 20.73 | 93.20 | 71.96 | 7.86 | 27.44 | 80.21 | 89.18 | 22.68 | 28.22 | 43.33 | 11.57 | 18.29 |
| +FC-GNN +MAGSAC↑ | 20.82 | 93.18 | 99.03 | 40.76 | 66.01 | 35.61 | 68.20 | 73.02 | 11.47 | 34.78 | 31.26 | 73.37 | 111.36 | 61.76 | 29.50 | 93.02 | 89.67 | 39.30 | 71.29 | 20.55 | 41.68 |
| +MAGSAC₁ +MAGSAC₁ | 29.79 33.53 | 95.38 95.65 | 90.97 86.53 | 64.15 64.44 | 67.32 66.34 | 49.78 54.26 | 71.66 71.83 | 59.17 53.93 | 29.74 29.87 | 34.95 34.22 | 56.14 64.91 | 77.19 77.70 | 79.09 64.16 | 57.18 53.74 | 36.10 39.17 | 95.19 95.46 | 83.69 80.06 | 60.44 60.87 | 71.27 71.20 | 34.82 35.10 | 41.62 41.54 |
| +GMS | | | | | | | | | | | | | | | | | | | | | |
| +GMS +MAGSAC₁ | 16.40 50.45 | 82.84 88.25 | 85.76 55.21 | 36.34 50.49 | 52.68 58.25 | 39.20 58.82 | 66.48 69.20 | 67.45 47.59 | 11.87 25.89 | 31.10 30.96 | 30.91 82.51 | 63.02 71.65 | 73.13 20.96 | 49.71 39.43 | 21.72 55.86 | 84.15 89.46 | 82.53 50.42 | 33.21 48.30 | 58.08 62.77 | 14.86 24.92 | 30.16 33.84 |
| +MAGSAC | 57.35 | 88.73 | 47.63 | 51.43 | 58.53 | 64.34 | 69.32 | 41.22 | 25.47 | 31.60 | 87.36 | 72.11 | 15.13 | 38.13 | 62.74 | 89.90 | 42.69 | 48.91 | 63.16 | 25.31 | 34.25 |
| +MS ² DG-Net | 79.12 | 84.38 | 22.04 | 10.61 | 26.69 | 71.03 | 66.45 | 33.76 | 1.39 | 19.26 | | 62.50 | 22.95 | 11.77 | 75.42 | 84.08 | 26.62 | 10.56 | 32.36 | 3.88 | 13.45 |
| +MAGSAC↑ | 86.53 | 88.55 | 15.20 | 26.72 | 31.68 | 81.09 | 70.82 | 23.12 | 13.67 | 19.20 | 78.34 95.16 | 72.30 | 5.90 | 23.35 | 85.25 | 88.82 | 17.17 | 26.48 | 37.09 | 11.40 | 15.45 |
| $+MAGSAC_{\downarrow}$ | 88.20 | 88.93 | 13.33 | 27.01 | 31.93 | 83.33 | 70.93 | 20.35 | 13.67 | 19.00 | 96.29 | 72.87 | 4.70 | 22.63 | 87.30 | 89.11 | 14.80 | 27.03 | 37.78 | 11.68 | 16.19 |
| +NCMNet | 17.90 | 85.69 | 85.44 | 19.65 | 46.39 | 48.03 | 67.90 | 59.37 | 6.77 | 27.42 | 25.68 | 64.20 | 78.87 | 53.07 | 26.59 | 85.51 | 78.54 | 19.06 | 51.61 | 7.82 | 23.99 |
| $+MAGSAC_{\uparrow}$ | 49.34 | 90.66 | 56.37 | 34.15 | 51.48 | 62.09 | 69.92 | 43.97 | 14.75 | 26.65 | 80.32 | 73.42 | 23.65 | 40.16 | 56.52 | 90.09 | 49.54 | 31.91 | 55.90 | 14.25 | 26.86 |
| $+MAGSAC_{\downarrow}$ | 56.24 | 91.13 | 48.80 | 34.92 | 51.18 | 66.96 | 70.04 | 38.31 | 14.80 | 26.13 | 85.88 | 73.62 | 16.98 | 38.56 | 63.07 | 90.48 | 42.17 | 32.30 | 56.30 | 14.51 | 27.29 |
| +OANet | 85.69 | 86.28 | 15.28 | 12.63 | 22.50 | 84.58 | 65.07 | 17.35 | 4.09 | 13.25 | 86.93 | 62.50 | 13.12 | 16.02 | 86.17 | 85.15 | 15.13 | 11.39 | 25.55 | 4.40 | 9.97 |
| $+ MAGSAC_{\uparrow}$ | 89.74 | 88.73 | 11.31 | 15.93 | 24.03 | 88.04 | 66.62 | 13.82 | 6.66 | 12.01 | 95.84 | 69.14 | 4.32 | 19.34 | 90.51 | 87.58 | 10.77 | 14.79 | 27.17 | 5.69 | 10.48 |
| $+MAGSAC_{\downarrow}$ | 90.99 | 89.02 | 9.96 | 16.40 | 25.14 | 89.28 | 66.61 | 12.27 | 6.82 | 12.11 | 96.77 | 69.63 | 3.23 | 19.48 | 91.75 | 87.78 | 9.37 | 15.02 | 27.06 | 5.71 | 10.47 |
| +MOP | 2.40 | 83.54 | 99.37 | 26.54 | 56.38 | 15.45 | 62.83 | 90.78 | 5.84 | 35.70 | 16.21 | 63.28 | 89.79 | 51.52 | 4.13 | 82.17 | 98.80 | 23.50 | 62.74 | 9.73 | 33.07 |
| $+ MAGSAC_{\uparrow}$ | 42.60 | 90.73 | 64.28 | 54.49 | 62.29 | 50.01 | 70.30 | 58.60 | 29.91 | 36.08 | 80.27 | 74.21 | 24.32 | 40.84 | 47.56 | 89.84 | 59.88 | 52.36 | 66.62 | 27.43 | 36.49 |
| +MAGSAC↓ | 50.77 | 91.27 | 55.30 | 55.54 | 62.19 | 57.05 | 70.48 | 50.38 | 29.91 | 35.37 | 85.93 | 74.58 | 17.42 | 39.36 | 55.94 | 90.31 | 50.51 | 52.98 | 67.39 | 27.89 | 37.44 |
| +MOP+NCC | 2.40 | 81.59 | 111.08 | 22.98 | 66.13 | 15.45 | 58.09 | 86.17 | 5.30 | 34.23 | 16.21 | 70.56 | 147.92 | 68.52 | 4.13 | 79.62 | 106.92 | 19.04 | 71.59 | 6.96 | 41.07 |
| +MAGSAC _↑ | 34.01 | 95.39 | 91.16 | 58.90 | 66.07 | 59.36 | 69.72 | 48.16 | 26.72 | 34.14 | 49.97 | 81.91 | 108.28 | 66.40 | 39.36 | 94.59 | 84.09 | 53.80 | 70.94 | 30.01 | 40.61 |
| $+MAGSAC_{\downarrow}$ | 38.98 | 95.95 | 85.37 | 60.00 | 66.09 | 64.53 | 69.83 | 42.03 | 26.51 | 33.56 | 57.99 | 82.23 | 93.25 | 61.93 | 44.26 | 95.12 | 78.18 | 54.60 | 70.79 | 30.39 | 40.53 |
| +MOP+MiHo | 1.12 | 82.81 | 99.83 | 21.94 | 56.69 | 7.96 | 60.72 | 95.09 | 3.82 | 35.94 | 11.30 | 61.59 | 89.40 | 46.21 | 1.93 | 80.87 | 99.48 | 18.88 | 62.92 | 7.44 | 33.14 |
| +MAGSAC↑ | 42.52 | 90.64 | 64.30 | 54.51 | 62.52 | 49.08 | 69.96 | 59.54 | 29.58 | 35.32 | 80.03 | 74.32 | 24.18 | 40.97 | 47.34 | 89.62 | 60.02 | 52.13 | 66.83 | 27.49 | 36.77 |
| $+MAGSAC_{\downarrow}$ | 50.73 | 91.21 | 55.32 | 55.84 | 63.15 | 56.29 | 70.13 | 51.06 | 30.05 | 35.29 | 85.74 | 74.60 | 17.16 | 39.17 | 55.77 | 90.10 | 50.60 | 53.03 | 67.37 | 28.00 | 37.37 |
| +MOP+MiHo+NCC | 1.12 | | 114.02 | 19.27 | 67.26 | 7.96 | 56.43 | 90.94 | 3.42 | 34.97 | 11.30 | 69.33 | 154.37 | 63.81 | 1.93 | 78.70 | 108.51 | 15.91 | 71.70 | 5.67 | 40.94 |
| +MAGSAC _↑ +MAGSAC _↓ | 33.47 | 95.58 | 93.75 | 58.94 | 66.27 | 58.01 | 69.39 | 49.18 | 27.30 | 34.87 | 48.91 | 82.14 | 113.46 | 67.90 | 38.98 | 94.53 | 85.02 | 53.73 | 71.11 | 29.62 | 40.56 |
| · · | 38.49 | 96.14 | 87.81 | 60.10 | 66.69 | 63.35 | 69.62 | 42.95 | 27.23 | 34.82 | 57.61 | 82.94 | 96.74 | 63.85 | 44.00 | 95.08 | 78.97 | 54.65 | 70.93 | 30.24 | 40.33 |
| +NCC | 0.00 | 71.10 | 89.89 | 14.04 | 50.87 | 0.00 | 53.24 | 93.54 | 2.18 | 30.46 | 0.00 | 52.54 | 95.12 | 41.56 | 0.00 | 69.27 | 89.95 | 12.72 | 56.37 | 4.53 | 29.73 |
| +MAGSAC↑ | 49.82 | 87.92 | 59.56 | 42.89 | 52.15 | 62.36 | 68.04 | 43.51 | 22.81 | 30.98 | 77.91 | 77.96 | 42.03 | 47.20 | 55.35 | 88.38 | 54.79 | 39.31 | 57.00 | 19.94 | 30.61 |
| $+MAGSAC_{\downarrow}$ | 56.23 | 88.54 | 52.79 | 42.87 | 52.03 | 67.99 | 68.19 | 37.01 | 23.31 | 30.72 | 83.75 | 78.52 | 32.04 | 44.07 | 61.67 | 88.93 | 47.68 | 39.52 | 56.66 | 20.02 | 30.34 |