Multi-Tracker Partition Fusion

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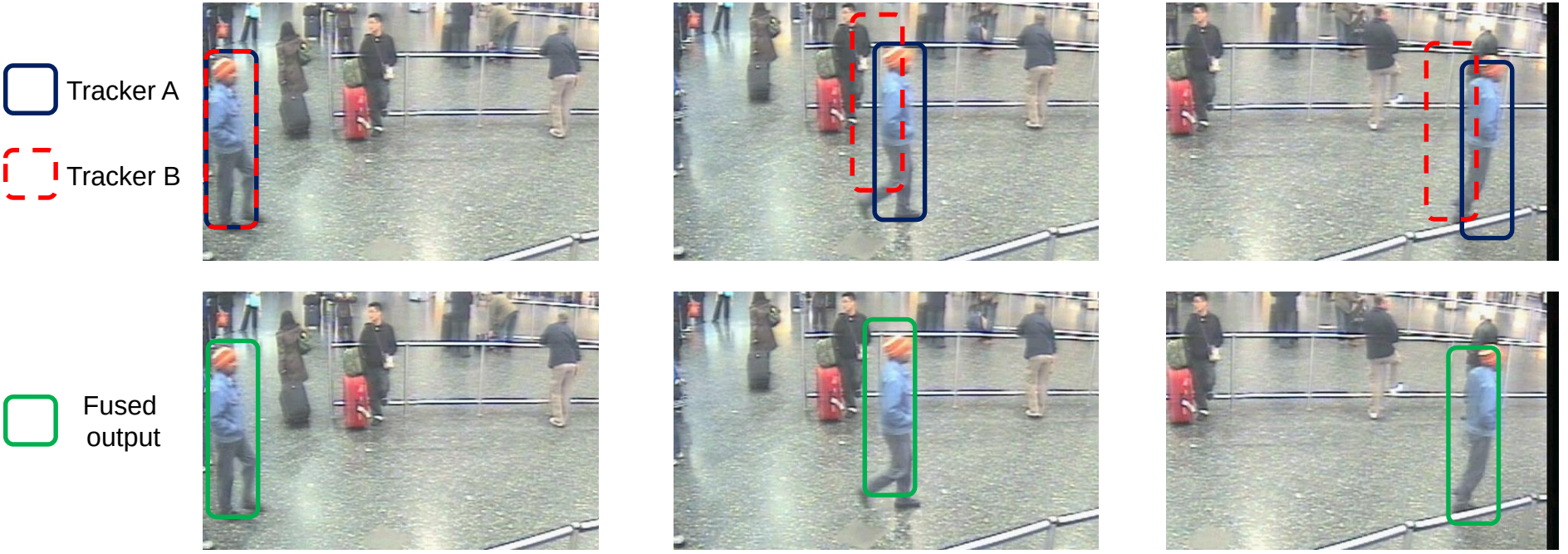
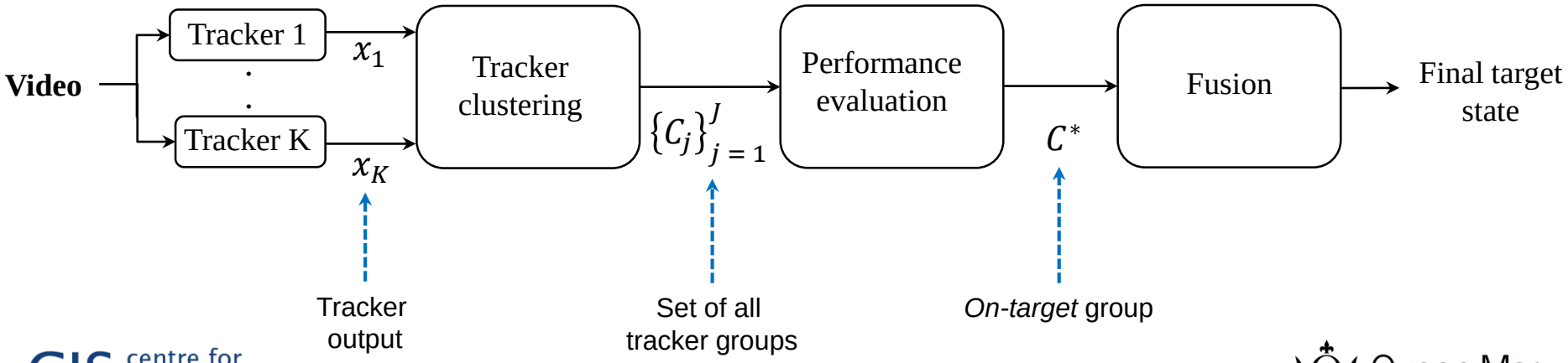
- Single object tracking
- Fusion (combining) multiple tracking algorithms
- Estimate how accurately the object is tracked



Tracker clustering for fusion

- Tracker clustering
  - Determine different groups of trackers
- Performance evaluation
  - Evaluating accuracy of trackers to determine the group following the correct target (*on-target*)
- Fusion
  - Combine outputs of trackers that are part of the *on-target* group



Results and conclusion

- Better or similar accuracy to the best tracker in 16 out of 22 video sequences.

Tracking accuracy on selected sequences (higher is better)

	Proposed	Sparse Tracker	Fragments Tracker	Orderless Tracker	LSS Tracker	Mean Shift Tracker	Compressive Tracker	L1 Tracker
Video 1	0.72	0.65	0.70	0.64	0.22	0.72	0.14	0.20
Video 2	0.81	0.80	0.76	0.79	0.50	0.23	0.58	0.82
Video 3	0.41	0.35	0.43	0.25	0.31	0.30	0.41	0.23
Video 4	0.77	0.63	0.72	0.78	0.41	0.60	0.10	0.55
Video 5	0.89	0.86	0.81	0.77	0.86	0.56	0.87	0.78

- Clustering allows to use *on-target* trackers only, hence increasing overall tracking accuracy

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