

# Visual Tracking with Reliable Memories

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## **Abstract**

We propose a novel tracking framework, which explores temporally correlated appearance clusters across tracked samples, and then preserves reliable memories for robust visual tracking. A novel clustering method with temporal constraints is carefully designed to help our tracker retrieve good memories from a vast number of samples for accurate detection, while still ensures its real-time performance. Experiment shows that our tracker performs favorably against other state-of-the-art methods, with outstanding ability to recover from drift error in long-term tracking tasks.

Examination Committee: Prof. Dimitris N. Metaxas (Chair), Prof. Vladimir Pavlovic, Prof. Kostas Berkris  
and Prof. Desheng Zhang