Continuous-Time Trajectory Estimation for Event-based Vision Sensors E. Mueggler, G. Gallego and D. Scaramuzza (RSS 2015)



- Ego-motion estimation for an event-based vision sensor using a continuous-time framework
- Directly integrating the information conveyed by the sensor
- Pose trajectory is approximated by a smooth curve using cubic splines in the space of rigid-body motions
- Optimization according a geometrically meaningful error measure in the image plane to the observed events
- Evaluation on datasets acquired from sensor-in-the-loop simulations and onboard a quadrotor performing flips with ground truth