A Centralized-equivalent Decentralized Implementation of Extended Kalman Filters for Cooperative Localization

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- A novel recursive decentralized cooperative localization (CL) algorithm
- Equivalent to a centralized EKF for CL
- Small communication message size
- Communication only at update stage
- Time-varying connectivity with the only requirement of existence of a spanning tree rooted at robots taking measurements

A team of communicating robots

— Correlation

◁ Relative measurement zone