

# List of Publications

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## 1 Publications in the PhD thesis

- **Y. Tian**, Y. Chang, F. Herrera Arias, C. Nieto-Granda, J. P. How and L. Carlone, “Kimera-Multi: Robust, Distributed, Dense Metric-Semantic SLAM for Multi-Robot Systems,” IEEE Transactions on Robotics (T-RO), 2022. **King-Sun Fu Memorial Best Paper Award, 2022.**
- **Y. Tian**, K. Khosoussi, D. M. Rosen and J. P. How, “Distributed Certifiably Correct Pose-Graph Optimization,” IEEE Transactions on Robotics (T-RO), 2021. **Honorable Mention for King-Sun Fu Memorial Best Paper Award, 2021.**
- **Y. Tian**, A. Koppel, A. S. Bedi and J. P. How, “Asynchronous and Parallel Distributed Pose Graph Optimization,” IEEE Robotics and Automation Letters (RA-L), 2020. **Honorable Mention for Best Paper Award, 2020.**
- **Y. Tian** and J. P. How, “Spectral Sparsification for Communication-Efficient Collaborative Rotation and Translation Estimation,” IEEE Transactions on Robotics (T-RO), 2023.
- **Y. Tian**, Y. Chang, L. Quang, A. Schang, C. Nieto-Granda, J. P. How and L. Carlone, “Resilient and Distributed Multi-Robot Visual SLAM: Datasets, Experiments, and Lessons Learned,” IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023.
- **Y. Tian**, A. S. Bedi, A. Koppel, M. Calvo-Fullana, D. M. Rosen and J. P. How, “Distributed Riemannian Optimization with Lazy Communication for Collaborative Geometric Estimation,” IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2022.
- Y. Chang, **Y. Tian**, J. P. How and L. Carlone, “Kimera-Multi: a System for Distributed Multi-Robot Metric-Semantic Simultaneous Localization and Mapping,” IEEE International Conference on Robotics and Automation (ICRA), 2021.

## 2 Other publications

- **Y. Tian**, K. Khosoussi, and J. P. How, “A Resource-Aware Approach to Collaborative Loop-Closure Detection with Provable Performance Guarantees,” International Journal of Robotics Research (IJRR), 2021.
- **Y. Tian**, K. Liu, K. Ok, L. Tran, D. Allen, N. Roy, and J. P. How. “Search and Rescue under the Forest Canopy using Multiple UAVs,” International Journal of Robotics Research (IJRR), 2020.
- K. Fathian, K. Khosoussi, **Y. Tian**, P. Lusk, and J. P. How. “CLEAR: A Consistent Lifting, Embedding, and Alignment Rectification Algorithm for Multiview Data Association,” IEEE Transactions on Robotics (T-RO), 2020.
- **Y. Tian**, K. Liu, K. Ok, L. Tran, D. Allen, N. Roy, and J. P. How. “Search and Rescue Under the Forest Canopy Using Multiple UAS,” Intl. Sym. on Experimental Robotics (ISER), 2018.
- **Y. Tian**, K. Khosoussi, and J. P. How. “Resource-Aware Algorithms for Distributed Loop Closure Detection with Provable Performance Guarantees,” Intl. Workshop on the Algorithmic Foundations of Robotics (WAFR), 2018.
- **Y. Tian**, K. Khosoussi, M. Giamou, J. P. How, and J. Kelly. “Near-Optimal Budgeted Data Exchange for Distributed Loop Closure Detection,” Robotics: Science and Systems (RSS), 2018.