

Yinlong Liu 刘银龙

Postdoctoral Scholar

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## Education

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- Doctor of Natural Sciences  
Technische Universität München, Germany 2018.10 – 2022.07
- Master of Biomedical Engineering  
Fudan University, China 2015.09 – 2018.07
- Bachelor of Automation  
Harbin Institute of Technology, China 2011.09 – 2015.06

## Publications

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- **Liu, Yinlong**, Zhijian Song, and Manning Wang. "A new robust markerless method for automatic image-to-patient registration in image-guided neurosurgery system." *Computer Assisted Surgery* 22, (2017): 319-325.
- **Liu, Yinlong**, Chen Wang, Zhijian Song, and Manning Wang. "Efficient global point cloud registration by matching rotation invariant features through translation search." In *Proceedings of the European Conference on Computer Vision (ECCV)*, pp. 448-463. 2018.
- **Liu, Yinlong**, Yuan Dong, Zhijian Song, and Manning Wang. "2D-3D Point Set Registration Based on Global Rotation Search." *IEEE Transactions on Image Processing* 28, no. 5 (2019): 2599-2613.
- **Liu, Yinlong**, Xuechen Li, Manning Wang, Alois Knoll, Guang Chen, and Zhijian Song. "A novel method for the absolute pose problem with pairwise constraints." *Remote Sensing* 11, no. 24 (2019): 3007.
- **Liu, Yinlong**, Guang Chen, and Alois Knoll. "Globally optimal camera orientation estimation from line correspondences by bnb algorithm." *IEEE Robotics and Automation Letters* 6, no. 1 (2020): 215-222.
- **Liu, Yinlong**, Guang Chen, Rongqi Gu, and Alois Knoll. "Globally Optimal Consensus Maximization for Relative Pose Estimation With Known Gravity Direction." *IEEE Robotics and Automation Letters* 6, no. 3 (2021): 5905-5912.
- **Liu, Yinlong**, Guang Chen, and Alois Knoll. "Globally Optimal Vertical Direction Estimation in Atlanta World." *IEEE transactions on pattern analysis and machine intelligence* 44, no. 4 (2022): 1949-1962.

- **Liu, Yinlong**, Yiru Wang, Manning Wang, Guang Chen, Alois Knoll, and Zhijian Song. "Globally optimal linear model fitting with unit-norm constraint." International Journal of Computer Vision 130, no. 4 (2022): 933-946.

### **Research Interests**

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- Geometry Vision, Computer Assisted Surgery, Medical Robotics

### **Projects**

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- N/A

### **Selected Awards & Honors**

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- N/A

### **Academic Services**

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