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研究简介

研究方向: 人机安全交互，位姿映射，遥操作，主动安全，时延敏感控制，云雾自动化，医疗辅助机器人

研究概述: 累计发表 SCI、EI 学术论文 50+ 篇，第一/通讯作者 16 篇，申请发明专利 7 项，软件著作权 10 余项，主持国家级及省部级项目 4 项，承担多项横向项目；获中国机械工业科学技术奖科技进步奖一等奖，中国科协优秀科技论文、机械工程学会优秀论文奖、机械工程学报优秀论文奖等奖项；Nature Communications、IEEE TMECH 等 30+ 期刊审稿人；IEEE JBHI 客座主编，IEEE IES TC-II 等多个技术委员会委员，中国自动化学会边缘计算专委会委员

工作经历

- **浙江大学, 高端装备研究院** 2026.02 - 至今
  平台百人计划研究员 杭州, 中国
- **浙江大学, 机械工程学院** 2024.03 - 2026.02
  助理研究员 (博士后, 合作导师: 杨华勇 院士) 杭州, 中国
- **ABB 瑞典研究院, 智能机器人与无线实验室** 2021.12 - 2022.11
  客座研究人员 (导师: Alf Isaksson 院士) 瓦斯特罗斯, 瑞典

教育经历

- **浙江大学** 2018.09 - 2023.12
  博士 (导师: 杨赓)，机械电子工程 杭州, 中国
- **瑞典皇家理工学院** 2021.09 - 2022.09
  联合培养博士，计算机科学与技术 斯德哥尔摩, 瑞典
- **中国矿业大学** 2014.09 - 2018.06
  工学学士，机械工程 徐州, 中国

科研项目

- **国家自然科学基金青年科学基金项目** 2025.01 - 2027.12 (主持)
  – 面向时延敏感任务的医疗辅助机器人遥操作控制方法研究
- **中国博士后科学基金特别资助项目** 2025.07 (主持)
  – 时延时变远程诊疗机器人智能感知与控制方法研究 (CNY 180,000)
- **国家资助博士后研究人员计划 (B 档)** 2024.07 (主持)
  – 中国博士后科学基金会, Grant No. GZB20240654 (CNY 360,000)
- **中国博士后科学基金面上项目** 2024.11 (主持)
  – 面向时延敏感任务的医疗辅助机器人远程操作方法研究, Grant No. 2024M762812 (CNY 80,000)
- **浙江省博士后科研项目择优资助 (一等资助)** 2024.10 (主持)
  – 浙江省人力资源和社会保障厅, Grant No. ZJ2024013 (CNY 80,000)
- **浙江省“尖兵领雁”科技计划项目** 2025.12 (项目主参排 2，课题主持)

– 面向工业场景精密操作的智能末端执行器与多模态感知系统关键技术

- **“智能制造系统和机器人” 国家科技重大专项** 2025.12 (子课题/任务负责人)

  – 自主化 XXX 机器人平台产品研制及验证

- **国防科工局实验室稳定支持项目分承研课题** 2023.12 - 2025.09 (主持)

  – XXX 机械臂遥操作控制系统研制

- **中国科学院沈阳自动化研究所横向委托课题** 2024.07 - 2026.07 (主持)

  – 面向工业具身智能端到端学习平台的物理训练平台设计与实现 (CNY 100,000)

- **中国东方电气集团科学研究院横向委托项目** 2024.11 - 2025.11 (主持)

  – 电弧增材制造机器人轨迹可视化与数显平台 (CNY 272,000)

- **国家自然科学基金面上项目** 2020.01 - 2023.12 (参与)

  – 面向安全助老的双臂协同机器人情感认知和行为交互方法研究

- **中国电子学会-腾讯 Robotics X 犀牛鸟专项研究计划** 2023.12 - 2024.12 (参与)

  – 多源感知驱动的家用辅助机器人安全交互技术研究

- **科技部长三角科技创新共同体联合攻关计划项目** 2024.01 - 2026.12 (参与)

  – 智能配网带电作业机器人研发及应用

发表文章

- 学术专著:

  [B.1] Honghao Lyu, Geng Yang, Huayong Yang, “Human Motion Awareness and Robot Teleoperation: Perception, Communication and Control”, Springer, eBook ISBN 978-981-96-6545-7, Oct. 2025, 10.1007/978-981-96-6545-7

- 期刊文章:

  [J.32] Baocheng Wang†, Depeng Kong†, Zhiao He†, Jikai Liang, Yuyao Lu, Zikang Deng, Honghe Li, Mengke Wang, M. Jamal Deen, Zhiqiu Ye, Shuyao Zhou, Huayong Yang, **Honghao Lyu***, Jun Chen, Kaichen Xu, and Geng Yang*, “Customizing Tactile Sensors via Machine Learning-driven Inverse Design,” Advanced Science, In Press, Jan. 2026, 10.1002/advs.202524250

  [J.31] Lican Zheng, Yuyao Lu*, **Honghao Lyu**, Tianyu Li, Songya Cui, Yuhong Xu, Zimo Cai, Yuyu Hou, Yibo Li, Qianqian Yang, Zhiqiu Ye, Geng Yang*, and Kaichen Xu*, “Laser Fabrication of Flexible Electrodes for Bioelectronics,” Biosensors and Bioelectronics, 298, 118386, Jan. 2026, 10.1016/j.bios.2026.118386

  [J.30] Honghao Lyu, Ruohan Wang, Yuyao Lu, Mengke Wang, Le Li, Huayong Yang, Jialin Zhang* and Geng Yang*, “Towards Anthropomorphic Grasping in Food Industries: A Dual-Arm Mobile Robot with Human-like Reaching Function for Adaptive Grasping”, IEEE Internet of Things Journal, Oct. 2025, 10.1109/JIOT.2025.3614869

  [J.29] Ruohan Wang, Ying Yang, Zhengjie Zhu, Chen Li, Xiaoyan Huang, Xiao Yang, Lipeng Chen, Dashun Zhang, Haiteng Wu, Geng Yang, and **Honghao Lyu***, “A Proactive Safety Architecture Based on Proximity Sensing for Enhanced Human-Robot Interaction in Tele-Homecare,” IEEE Transactions on Human Machine Systems, 56(1), 135-146, Dec. 2025, 10.1109/THMS.2025.3627542

  [J.28] Kang Liu, Yefeng Yang, **Honghao Lyu***, Wenyu Yang, Yifei Zhang, Zheng Tan, and Chih-Yung Wen*, “Adaptive Predefined-Time Disturbance Observer-Based Fast Nonsingular Sliding Mode Control Strategy for Consumer Quadrotor UAVs: Theory and Experiments,” IEEE Transactions on Consumer Electronics, vol. 71, 4, Sept. 2025, 10.1109/TCE.2025.3615655

[J.27] Zhangli Lu, Ruohan Wang, Huiying Zhou, Na Dong*, **Honghao Lyu***, and Geng Yang, "A Novel Gait Identity Recognition Method for Personalized Human-robot Collaboration in Industry 5.0," Chinese Journal of Mechanical Engineering, vol. 38, 191, Sept. 2025, 10.1186/s10033-025-01348-x

[J.26] Qianqian Yang, Bingqiao Li, Mengke Wang, Gaoyang Pang, Yuyao Lu, Jiayan Li, Huayong Yang, **Honghao Lyu**, Kaichen Xu*, Geng Yang*, "Machine Learning-Enhanced Modular Ionic Skin for Broad-Spectrum Multimodal Discriminability in Bidirectional Human–Robot Interaction," Advanced Materials, e08795, Jul. 2025, 10.1002/adma.202508795

[J.25] **吕鸿昊**, 诸正杰, 程宇航, 何平, 汪若菡, 陈富国, 杨华勇, 杨赪, 董娜 *, ''工业机器人主动安全作业方法与应用", 机械工程学报, vol.61, no.15, Aug. 2025, 10.3901/JME.2025.15.174

[J.24] Depeng Kong, Yuyao Lu, Shuyao Zhou, Mengke Wang, Gaoyang Pang, Baocheng Wang, Lipeng Chen, Xiaoyan Huang, **Honghao Lyu**, Kaichen Xu*, and Geng Yang*, "Super-Resolution Tactile Sensor Arrays with Sparse Units Enabled by Deep Learning", Science Advances, vol.11, art no.eadv2124, Jun. 2025, 10.1126/sciadv.adv2124

[J.23] Ruohan Wang, **Honghao Lyu**, Zhengjie Zhu, Ying Yang, Xiaoyan Huang, Haiteng Wu, Na Dong, Lipeng Chen, and Geng Yang*, "Safety-Aware Shared Control for Teleoperated Robotic Precision Tasks under Dynamic Interference", IEEE Robotics and Automation Letters, vol. 10, no. 9, pp.9328-9335, Jul. 2025, 10.1109/LRA.2025.3592086

[J.22] **Honghao Lyu**, Anna Bengtsson, Sofie Nilsson, Zhibo Pang, Alf Isaksson, and Geng Yang, "Latency-Aware Control for Wireless Cloud Fog Automation: Framework and Case Study", IEEE Transactions on Automation Science and Engineering (IEEE TASE), vol.22, pp.5400-5410, Jul. 2024, 10.1109/TASE.2024.3420770

[J.21] **Honghao Lyu**, Jing Yan, Jialin Zhang, Zhibo Pang*, Geng Yang, and Alf Isaksson, "Cloud-Fog Automation: Heterogenous Applications over New Generation Infrastructure of Virtualized Computing and Converged Networks", IEEE Industrial Electronics Magazine (IEEE IEM), vol.18, no.4, pp.30-42, Jun. 2024, 10.1109/MIE.2024.3407051

[J.20] **Honghao Lyu**, Zhibo Pang*, Koushik Bhimavarapu, and Geng Yang, "Impacts of Wireless on Robot Control: The Network Hardware-in-the-Loop Simulation Framework and Real-Life Comparisons", IEEE Transactions on Industrial Informatics (IEEE TII), vol.19, no.9, pp.9255-9265, Sep. 2023, 10.1109/TII.2022.3227639 (TOP, IF = 12.3)

[J.19] **Honghao Lyu**, Depeng Kong, Gaoyang Pang, Baicun Wang, Zhangwei Yu, Zhibo Pang, and Geng Yang*, "GuLiM: A Hybrid Motion Mapping Technique for Teleoperation of Medical Assistive Robot in Combating the COVID-19 Pandemic," IEEE Transactions on Medical Robotics and Bionics (IEEE TMRB), vol.4, no.1, pp.106-117, Jan. 2022, 10.1109/TMRB.2022.3146621 (Popular Article)

[J.18] **Honghao Lyu**, Geng Yang*, Huiying Zhou, Xiaoyan Huang, Huayong Yang, Zhibo Pang, "Teleoperation of Collaborative Robot for Remote Dementia Care in Home Environments," IEEE Journal of Translational Engineering in Health and Medicine (IEEE JTEHM), vol.8, art no.1400510, Jun. 2020, 10.1109/JTEHM.2020.3002384

[J.17] Geng Yang*, **Honghao Lyu**, Zhiyu Zhang, Liu Yang, Siqi You, Juan Du, Huayong Yang, "Keep Healthcare Workers Safe: Application of Teleoperated Robot in Isolation Ward for COVID-19 Prevention and Control", Chinese Journal of Mechanical Engineering (CJME), vol.33, art no.47, Jun. 2020, 10.1186/s10033-020-00464-0

[J.16] Ruohan Wang†, **Honghao Lyu†**, Zhangli Lu, Xiaoyan Huang, Haiteng Wu, Junjie Xiong, Geng Yang*, "A Medical Assistive Robot for Tele-healthcare During the COVID-19 Pandemic: Development and Usability Study in an Isolation Ward", JMIR Human Factors, vol.10, art. no.e42870, Jan. 2023, 10.2196/42870 (Co-first author)

[J.15] Huiying Zhou, **Honghao Lyu**, Ruohan Wang, Haiteng Wu, Geng Yang*, "Revitalizing Human-Robot Interaction: Phygital Twin Driven Robot Avatar for China–Sweden Teleoperation", Chinese Journal of Mechanical Engineering (CJME), vol.36, art. no.124, Oct. 2023, 10.1186/s10033-023-00956-9

[J.14] Huiying Zhou, Geng Yang*, **Honghao Lyu**, Zhibo Pang, Xiaoyan Huang, Huayong Yang, "IoT-enabled Dual-arm Motion Capture and Mapping for Telerobotics in Homecare", IEEE Journal of Biomedical and Health Informatics (IEEE JBHI), vol.24, no.6, pp.1541-1549, Nov. 2019, 10.1109/JBHI.2019.2953885

[J.13] Geng Yang, **Honghao Lyu**, Feiyu Chen, Zhibo Pang, Jin Wang, Huayong Yang, Junhui Zhang*, "A Novel Gesture Recognition System for Intelligent Interaction with a Nursing-Care Assistant Robot", Applied Sciences-Basel, vol.8, no.12, art. no.2349, Dec. 2018, 10.3390/app8122349

[J.12] Feiyu Chen, **Honghao Lyu**, Zhibo Pang, Junhui Zhang, Yonghong Hou, Ying Gu, Huayong Yang and Geng Yang*, "WristCam: A Wearable Sensor for Hand Trajectory Gesture Recognition and Intelligent Human-Robot Interaction", IEEE Sensors Journal, vol.19, no.19, pp.8441-8451, Oct. 2018, 10.1109/JSEN.2018.2877978

[J.11] Zhangli Lu, Huiying Zhou, Gaoyang Pang, Shuyao Zhou, Weijing Sui, **Honghao Lyu**, and Geng Yang*, "Personalized Stroke Rehabilitation via Stratified Interpretable Modeling with Wearable IMUs", IEEE Transactions on Neural Systems and Rehabilitation Engineering, vol. 33, pp.4325-4337, Oct. 2025, 10.1109/tnsre.2025.3625159

[J.10] Zhangli Lu, Huiying Zhou, Longqiang Wang, Depeng Kong, **Honghao Lyu**, Haiteng Wu, Bing Chen, Fuguo Chen, Na Dong, and Geng Yang*, "GaitFormer: Two-Stream Transformer Gait Recognition Using Wearable IMU Sensors in the Context of Industry 5.0", IEEE Sensors Journal, vol. 25, no. 11, pp.19947-19956, Apr. 2025, 10.1109/JSEN.2025.3560812

[J.9] Zhangli Lu, Huiying Zhou, **Honghao Lyu**, Haiteng Wu, Shaohua Tian, and Geng Yang*, "Berg Balance Scale Scoring System for Balance Evaluation by Leveraging Attention-Based Deep Learning with Wearable IMU Sensors", Bioengineering, vol.12, no.4, 395, Apr. 2025, 10.3390/bioengineering12040395

[J.8] Shuyao Zhou, Depeng Kong, Mengke Wang, Baocheng Wang, Yuyao Lu, **Honghao Lyu**, Zhangli Lu, Yong Tao, Kaichen Xu, and Geng Yang*, "Unlocking Dynamic Subtle Stimuli Tactile Perception: A Deep Learning-Enhanced Super-Resolution Tactile Sensor Array with Rapid Response", Advanced Intelligent Systems, vol.7, no.5, art no.2400913, Jun. 2025, 10.1002/aisy.202400913

[J.7] Ruohan Wang, Chen Li, **Honghao Lyu**, Gaoyang Pang, Haiteng Wu, and Geng Yang*, "A Smooth Velocity Transition Framework Based on Hierarchical Proximity Sensing for Safe Human-Robot Interaction," IEEE Robotics and Automation Letters (IEEE RAL), vol. 9, no.6, pp.4910-4917, Apr. 2024, 10.1109/LRA.2024.3385608

[J.6] Zhiqiu Ye, Gaoyang Pang, Yihao Liang, **Honghao Lyu**, Kaichen Xu, Geng Yang*, "Highly Stretchable and Sensitive Strain Sensor Based on Porous Materials and Rhombic-mesh Structures for Robot Teleoperation," Advanced Sensor Research, vol.2, no.10, art. no.2300044, Oct. 2023, 10.1002/adsr.202300044

[J.5] Qianqian Yang, Zhiqiu Ye, Renke Wu, **Honghao Lyu**, Chen Li, Kaichen Xu, Geng Yang*, "A Highly Sensitive Iontronic Bimodal Sensor with Pressure-Temperature Discriminability for Robot Skin," Advanced Materials Technologies, vol.8, no.21, art. no. 2300561, Aug. 2023, 10.1002/admt.202300561

[J.4] Depeng Kong, Geng Yang*, Gaoyang Pang, Zhiqiu Ye, **Honghao Lyu**, Zhangwei Yu, Fei Wang, Xi Vincent Wang, Kaichen Xu, and Huayong Yang, "Bioinspired Co-Design of Tactile Sensor and Deep Learning Algorithm for Human-Robot Interaction," Advanced Intelligent Systems, vol. 4, no. 6, art. no.2200050, Jun. 2022, 10.1002/aisy.202200050

[J.3] Zakka Vincent Gbouna†, Gaoyang Pang†, Geng Yang*, Zeyang Hou, **Honghao Lyu**, Zhangwei Yu, and Zhibo Pang, "User-Interactive Robot Skin with Large-Area Scalability for Safer and Natural Human-Robot Collaboration in Future Telehealthcare," IEEE Journal of Biomedical and Health Informatics, vol.25, no.12, pp.4276-4288, May 2021, 10.1109/JBHI.2021.3082563

[J.2] Wenzheng Heng, Geng Yang, Gaoyang Pang, Zhiqiu Ye, **Honghao Lyu**, Juan Du, Guodong Zhao, and Zhibo Pang, "Fluid-Driven Soft CoboSkin for Safer Human-Robot Collaboration: Fabrication and Adaptation," Advanced Intelligent Systems, vol.3, no.3, art. no.2000038, Jun. 2020, 10.1002/aisy.202000038

[J.1] Zhiqiu Ye†, Gaoyang Pang†, Kaichen Xu, Zeyang Hou, **Honghao Lyu**, Yiren Shen, and Geng Yang*, "Soft Robot Skin with Conformal Adaptability for On-body Tactile Perception of Collaborative Robots," IEEE Robotics and Automation Letters, vol.7, no.2, pp.5127-5134, Apr. 2022, 10.1109/LRA.2022.3155225

- 会议文章:

[C.21] Zemin Zhang, **Honghao Lyu**, Haiteng Wu, Shaohua Tian, Yi Chen, Geng Yang*, "Digital Twin-Enabled Offline Trajectory Generation and Real-Time Control for Robotic Laser Processing on Complex Surfaces", in the 23rd IEEE International Conference on Industrial Informatics (INDIN 2025), Kunming, China, Jul. 2025. 10.1109/INDIN64977.2025.11279706

[C.20] Guangwei Zhang, Ruohan Wang, Mengke Wang, **Honghao Lyu***, Dapeng Lan, Dashun Zhang, and Geng Yang, "Wearable Exoskeleton-Based Immersive Teleoperation for Industrial Manufacturing Systems: Hardware Design and Verification", in the 23rd IEEE International Conference on Industrial Informatics (INDIN 2025), Kunming, China, Jul. 2025. 10.1109/INDIN64977.2025.11279561

[C.19] Thien Tran, Jonathan Kua, Minh Tran, **Honghao Lyu**, Thuong Hoang and Jiong Jin, "CFTel: A Practical Architecture for Robust and Scalable Telerobotics with Cloud-Fog Automation", in the 23rd IEEE International Conference on Industrial Informatics (INDIN 2025), Kunming, China, Jul. 2025. 10.1109/INDIN64977.2025.11279161

[C.18] Ruohan Wang, Guangwei Zhang, Zhengjie Zhu, **Honghao Lyu**, Xiaoyan Huang, Na Dong, Lipeng Chen, M. Jamal Deen, and Geng Yang*, "Advancing Robot Interaction Safety: A Teleoperated Shared-Control Approach Using a Lightweight Force-Feedback Exoskeleton", in the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2025), Hangzhou, China, Oct. 2025. 10.1109/iros60139.2025.11247393

[C.17] Siyuan Liu, Dapeng Lan*, Jia Wang, Dongxiao Hu, Zhibo Pang, **Honghao Lyu**, "How Pretrained Foundation Models and Cloud-Fog Automation Empower the Recycling of Electrical Vehicles", in the 22nd IEEE International Conference on Industrial Informatics (INDIN2024), Beijing, China, Aug. 2024, 10.1109/INDIN58382.2024.10774292

[C.16] **Honghao Lyu**, Huiying Zhou, Ruohan Wang, Haiteng Wu, Zhibo Pang and Geng Yang*, "Towards Intercontinental Teleoperation: A Cloud-Based Framework for Ultra-Remote Human-Robot Dual-Arm Motion Mapping", in the 16th International Conference on Intelligent Robotics and Applications (ICIRA2023), Hangzhou, China, Jul. 2023, 10.1007/978-981-99-6498-7_12. (Best Student Paper Finalist Award)

[C.15] **Honghao Lyu**, Zhibo Pang, Geng Yang, "Hardware-in-the-Loop Simulation for Evaluating Communication Impacts on the Wireless-Network-Controlled Robots", in the 48th Annual Conference of the IEEE Industrial Electronics Society (IECON 2022), Brussels, Belgium, Oct. 2022, 10.1109/IECON49645.2022.9968471 (IEEE IES Young Professionals & Students Paper Assistance Award)

[C.14] Deyou Zhang and **Honghao Lyu***, "NOMA Enabled Multi-Access Edge Computing: A Joint MU-MIMO Precoding and Computation Offloading Design", in the 33rd International Symposium on Industrial Electronics (ISIE 2024), Ulsan, Korea, Jun. 2024, 10.1109/ISIE54533.2024.10595811

[C.13] Ping He, **Honghao Lyu**, Haiteng Wu, and Geng Yang*, "Modeling and Control of Differential-Drive Chassis for a Homecare Assistive Robot", in the 32nd International Symposium on Industrial Electronics (ISIE2023), Helsinki, Finland, Jun. 2023, 10.1109/ISIE51358.2023.10228142

[C.12] Jiayan Li, **Honghao Lyu**, Haiteng Wu, Geng Yang*, "Design and Realization of a Multi-DoF Robotic Head for Affective Humanoid Facial Expression Imitation", in the 16th International Conference on Intelligent Robotics and Applications (ICIRA2023), Hangzhou, China, Jul. 2023, 10.1007/978-981-99-6483-3_3

[C.11] Ruibin Zhang, **Honghao Lyu**, Huiying Zhou, Yurui Zhang, Chenhao Liu, and Geng Yang*, "A Gait Recognition System for Interaction with a Homecare Mobile Robot", in the 46th Annual Conference of the IEEE Industrial Electronics Society (IECON 2020), Singapore, Oct. 2020, 10.1109/IECON43393.2020.9254412

[C.10] Yuqi Wang, **Honghao Lyu**, Huiying Zhou, Qi Cao, Zikang Li, and Geng Yang*, "A Sensor Glove Based on Inertial Measurement Unit for Robot Teleoperation", in the 46th Annual Conference of the IEEE Industrial Electronics Society (IECON 2020), Singapore, Oct. 2020, 10.1109/IECON43393.2020.9254878

[C.9] Huiying Zhou†, **Honghao Lyu†**, Kang Yi, Zhibo Pang, Huayong Yang, Geng Yang*, "An IoT-Enabled Telerobotic-Assisted Healthcare System Based on Inertial Motion Capture", in the 2019 IEEE International Conference on Industrial Informatics (INDIN 2019), Helsinki, Jul. 2019, 10.1109/INDIN41052.2019.8972195 (co-first author)

[C.8] Shimin Pan, **Honghao Lyu**, Hong Duan, Gaoyang Pang, Kang Yi, and Geng Yang*, "A Sensor Glove for the Interaction with a Nursing-Care Assistive Robot", in the 2019 IEEE International Conference on Industrial Cyber-Physical Systems (ICPS 2019), Taipei, May 2019, 10.1109/ICPHYS.2019.8780354

[C.7] Mengke Wang, **Honghao Lyu**, Ruohan Wang, Haiteng Wu, Lipeng Chen, Yi Chen, Haihui Yuan, Geng Yang, "Enhancing Robot Teleoperation in Remote Automation Production through an Event-Triggered Control Strategy", in the 33rd International Symposium on Industrial Electronics (ISIE 2024), Ulsan, Korea, Jun.

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[C.6] Lei Wang, Ruohan Wang, **Honghao Lyu**, Na Dong, Zhongwei Zhang, Yungang Hao, Haihui Yuan, Haiteng Wu, Geng Yang, "Liberating Humanity from Heavy Labor: Dual-Arm Coordination and Teleoperation Control for an Assistive Robot", in the 33rd International Symposium on Industrial Electronics (ISIE 2024), Ulsan, Korea, Jun. 2024, 10.1109/ISIE54533.2024.10595726

[C.5] Ruohan Wang, Xi Cui, **Honghao Lyu**, Haiteng Wu, Geng Yang*, "Enable Intuitive and Immersive Teleoperation: Design, Modeling and Control of a Novel Wearable Exoskeleton", in the 16th International Conference on Intelligent Robotics and Applications (ICIRA2023), Hangzhou, China, Jul. 2023, 10.1007/978-981-99-6486-4_17

[C.4] Huiying Zhou, Liu Yang, **Honghao Lyu**, Kang Yi, Huayong Yang, and Geng Yang*, "Development of a Synchronized Human-Robot-Virtuality Interaction System using Cooperative Robot and Motion Capture Device", in the IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2019), Hong Kong, Jul. 2019, 10.1109/AIM.2019.8868447

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[C.2] Ying Yang, Chen Li, Ruohan Wang, Huayu Luo, **Honghao Lyu**, Haiteng Wu, Dashun Zhang, Lipeng Chen, and Geng Yang, "Design of Highly Integrated Microscale Fingertip Tactile Sensor for Robot Dexterous Hand", in the 17th International Conference on Intelligent Robotics and Applications (ICIRA2024), Hangzhou, China, Jul. 2024, 10.1007/978-981-96-0780-8_20

[C.1] Ruohan Wang, Guangwei Zhang, Guangyao Zhang, **Honghao Lyu**, Na Dong, Zhongwei Zhang, Yungang Hao, Haihui Yuan, Haiteng Wu, Geng Yang*, "Towards Immersive Teleoperation: Dynamic Identification for Force Feedback of a Wearable Exoskeleton", in the 7th IFToMM Asian Mechanisms and Machine Science Conference (Asian-MMS 2024), Almaty, Kazakhstan, Aug. 2024, 10.1007/978-3-031-67569-0_9

专利软著

- 发明专利:

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科技奖励与荣誉获奖

- 中国商业联合会科学技术奖技术发明一等奖 (排 3/6) 2025
- 中国机械工业科技进步一等奖 (排 6/15) 2024
- 中国发明协会创业成果奖 (排 6/6) 2025
- 中国机器人行业技术突破奖 (团队) 2024
- 浙江省科技厅技术需求揭榜挂帅大赛一等奖 (排 2/10) 2024
- 全国机械工业设计创新大赛金奖 (排 1) 2022
- 中国科协优秀科技论文 2020
- 机械工程学会优秀论文 2020
- 机械工程学报优秀论文 2020

个人荣誉

- 浙江省优秀毕业生 2023
- 博士生国家奖学金 2020
- 国家奖学金 2017
- 国家奖学金 2016
- 国家奖学金 2015
- 浙江大学创新创业奖 2020
- 孙越崎优秀学生奖 2018
- 千普华液奖学金 2020
- 浙江大学机械工程学院十佳学生 2021
- 浙江大学优秀研究生、三好研究生 2019, 2020, 2022
- 中国矿业大学优秀毕业生 2018
- 江苏省省级三好学生 2017
- 中国矿业大学优秀学生、优秀团员、优秀团干部 2015, 2016, 2017
- 山东省省级优秀学生干部 2013
- 淄博市三好学生 2009
- 浙江省互联网 + 创新创业大赛金奖 (排 1) 2020
- 浙江省挑战杯省赛二等奖 (排 1) 2020
- 浙江大学研究生机器人创新设计大赛一等奖 (排 1) 2019
- 全国大学生数学建模竞赛国赛二等奖 2016
- 本科优秀毕业设计 2018
- 希望杯机械设计课程设计大赛一等奖 2017

毕业论文

- **博士毕业论文** 2023, 浙江大学, 杭州
  - 人机位姿映射遥操作及智能交互关键技术研究
- **本科毕业论文** 2018, 中国矿业大学, 徐州
  - 基于 YuMi 机器人的协作式移动平台及其安全交互设计

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