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学位职称：博士学位 教授

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主讲课程：《高等代数》、《线性代数》、《常微分方程》
和《概率论与数理统计》等



科研方向：自适应控制、容错控制、智能控制和事件触发控制等。

教育工作简历：

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|------------------------|----------|------------|-------|
| (1) 2000.09 至 2004.07, | 渤海大学, | 数学与应用数学, | 学士; |
| (2) 2004.09 至 2007.03, | 东北大学, | 基础数学, | 硕士; |
| (3) 2011.09 至 2016.07, | 东北大学, | 控制理论与控制工程, | 博士; |
| (4) 2018.09 至 2019.08, | 韩国岭南大学, | 电气工程系, | 博士后; |
| (5) 2024.07 至 2024.12, | 加拿大湖首大学, | 电气工程系, | 访问学者。 |

学术成果：

【获奖】

2016 年获评辽宁科技大学优秀教师；

2017 年获评辽宁省自然科学学术成果奖三等奖；

2018 年获评辽宁省自然科学学术成果奖三等奖；

2019 年获评辽宁科技大学优秀共产党员；

2021 年获评本科生毕业论文校优秀指导教师；

2021 年获评辽宁科技大学优秀研究生指导教师；

2023 年获评辽宁省自然科学学术成果奖二等奖；

入选 2024 年科睿唯安全球“高被引学者”名录；

2024 年获评辽宁省数学建模竞赛优秀组织工作者；

2024 年获评辽宁省自然科学学术成果奖三等奖；

2024 年入围科睿唯安全球前 2% 顶尖科学家；

2025 年入围科睿唯安全球前 2% 顶尖科学家；

2025 年获评辽宁省自然科学奖三等奖；

2025 年获评（2024 届）辽宁省优秀硕士学位论文指导教师；

2025 年获评辽宁科技大学优秀科技工作者；

2025 年获评（2025 届）辽宁科技大学优秀硕士学位论文指导教师。

【代表性学术著作、论文】

1. 代表性学术著作

- [1] 武力兵. 基于自适应技术的鲁棒容错控制方法[M]. 东北大学出版社: 沈阳, 2018:1-173.

2. 论文

(1) SCI 期刊

- [1] Ming-Rui Liu, **Li-Bing Wu***, Huan-Qing Wang, Liang-Dong Guo, and Sheng-Juan Huang. Disturbance observer-based nonsingular fixed-time fuzzy adaptive event-triggered output feedback control of uncertain nonlinear systems[J]. **Fuzzy Sets and Systems**, 2025, 498: 109-132. (TOP 期刊论文, 中科院 1 区, 影响因子: 3.2)
- [2] Ming-Rui Liu, **Li-Bing Wu***, Ming Chen, Guo-Fei Cui, and Qi Chen. Model-based event-triggered leaderless consensus control for nonlinear pure-feedback multi-agent systems [J]. *Asian Journal of Control*, 2025, 27(2): 973-986.
- [3] Ming-Rui Liu, **Li-Bing Wu***, and Wen-Di Ci. Observer-based adaptive fuzzy quantized fault-tolerant control of nonstrict-feedback nonlinear systems with actuator and sensor faults [J]. *International Journal of Systems Science*, 2024, 56(5): 935-952.
- [4] Ming-Rui Liu, **Li-Bing Wu***, Hong Sang, Liang-Dong Guo, and Sheng-Juan Huang. Disturbance observer-based fuzzy adaptive switched tuning control of uncertain nonlinear systems with full state constraints [J]. *Applied Mathematics and Computation*, 2024, 487(15): 129110.
- [5] Ming-Rui Liu, **Li-Bing Wu***, Meng Wu, and Wen-Chao Ma. Event-triggered adaptive fault estimation and fault-tolerant control for strict-feedback nonlinear systems with full state constraints [J]. *Nonlinear Dynamics*, 2025, 113: 2505-2520.
- [6] Qi Chen, **Li-Bing Wu***. Fixed-time adaptive fault-tolerant control of stochastic nonlinear systems with time-varying full-state constraints [J]. *Nonlinear Dynamics*, 2024, 112: 22113-22129.
- [7] Qi Chen, **Li-Bing Wu***, Ming Chen, and Ming-Rui Liu. Fixed-time adaptive event-triggered fault-tolerant control of nonlinear systems with actuator failures [J]. *Asian Journal of Control*, 2025, 27(2): 765-781.
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- [9] Meng Wu, **Li-Bing Wu***, Ying Yan, and Yan-Wu Dong. Adaptive fuzzy fault-tolerant control of stochastic nonlinear multiagent systems with input quantization and state constraints [J]. *Asian Journal of Control*, 2024, 26(5): 2377-2389.
- [10] Meng Wu, **Li-Bing Wu***, and Guo-Fei Cui. Event-triggered adaptive control for consensus tracking of multi-agent systems with input saturations and full-state constraints [J]. *Journal of Mathematical Analysis and Applications*, 2024, 540(1): 128572.
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- fault-tolerant control for leader-following consensus of multi-agent systems [J]. *International Journal of Systems Science*, 2024, 55(15): 3291-3303.
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- [15] Ya-Xin Li, **Li-Bing Wu***, Yu-Han Hu, Wei-Jun Yan, Nan-Nan Zhao, and Jin Nie. Adaptive fault-tolerant control of switched nonlinear systems based on tuning function method [J]. *Asian Journal of Control*, 2023, 25(5): 3474-3486.
- [16] Yi-Fan Dun and **Li-Bing Wu**. Fixed-time prescribed performance fault compensation control of uncertain pure-feedback nonlinear systems [J]. *International Journal of Systems Science*, 2022, 54(3): 607-617.
- [17] Hui-Yun Zhang, **Li-Bing Wu***, Wei-Jun Yan, and Yu-Han Hu. Finite time adaptive filter control of nonlinear systems with actuator faults and state constraints [J]. *Asian Journal of Control*, 2022, 25(2): 1606-1618.
- [18] Yu Yao and **Li-Bing Wu***, Backstepping control for fractional discrete-time systems [J]. *Applied Mathematics and Computation*, 2022, 434(1): 127450.
- [19] Yan Yan, **Li-Bing Wu***, Wei-Jun Yan, Yu-Han Hu, Nan-Nan Zhao, and Ming Chen. Finite-time event-triggered fault-tolerant control for a family of pure-feedback systems [J]. *Applied Mathematics and Computation*, 2022, 426(1): 127087.
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- [47] Yun-Fei Zhang and **Li-Bing Wu***. Observer-based output feedback H_∞ fault-tolerant consensus for a class of leader–follower multi-agent systems subject to actuator faults[J]. *International Journal of Systems Science*, 2025: 1-12.
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(2) EI 期刊

- [51] Ying Yan, **Li-Bing Wu***, Xi-Qin He, and Ming Chen. Adaptive fault-tolerant tracking control of uncertain nonlinear systems with event-triggered inputs and full state constraints [J]. *Journal of Control, Automation and Electrical Systems*, 2022, 33(6): 1688-1699.

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(3) 中文核心期刊

- [55] 陈琪, **武力兵***. 具有全状态约束的非线性系统固定时间自适应容错控制[J]. 系统科学与数学, 2024.
- [56] 阎岩, **武力兵***. 一类带有未知控制方向的非线性系统的模糊自适应事件触发容错控制[J]. 工程数学学报, 2022, 39(06): 886-898.
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(4) EI 会议

- [58] Pu Wang, **Li-Bing Wu***, Si-Yu Wang, Qi-Ke Yu, Lu-Yao Zhang, and Mei-Qiao Li. Adaptive control of strict-feedback nonlinear systems with output constraints and input delays[C]. Chinese Control and Decision Conference(CCC), 2024: 4742-4747.
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(5) 中文期刊

- [61] 张云飞, **武力兵***. 一类线性多智能体系统的鲁棒 H_∞ 事件触发容错控制[J]. 兰州工业学院学报, 2024.
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- [63] 刘函, **武力兵***. 一类带有输入时滞的非线性关联大系统的分散自适应控制[J]. 辽宁科技大学学报, 2023, 46(06): 434-439.
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【主要科研项目】

1. 国家自然科学基金项目，62441309，基于事件触发机制的非线性约束系统模糊自适应容错控制，2025.01-2025.12，15 万元，在研，主持。
2. 辽宁省自然科学基金面上项目，一类切换非线性系统的预设时间控制，2025.09-2027.08，8 万元，在研，主持。
3. 辽宁省高校基本科研业务费项目，LJ212410146024，非线性切换多智能体系统的模糊自适应固定时间容错控制，2024.01-2025.12，10 万元，在研，主持。
4. 辽宁省科技厅面上项目，2022-MS-356，具有执行器约束模式的多智能体系统事件触发控制，2022.09-2024.08，5 万元，已结题，主持。
5. 辽宁省教育厅面上项目，LJKZ0284，带有全状态受限随机非线性系统的事件触发控制研究，2021.09-2023.08，5 万元，已结题，主持。
6. 辽宁省自然科学基金指导项目，20180551190，不确定非线性切换系统的有限时间自适应容错控制研究，2018.09-2020.08，5 万元，已结题，主持。
7. 辽宁省教育厅重点项目，2017LNZD05，模型不确定下三角非线性系统自适应故障估计与容错控制研究，2017.10-2019.09，10 万元，已结题，主持。