

# Ting Bai

## PERSONAL DATA

---

NATIONALITY: China  
TITLE: Postdoctoral Researcher  
AFFILIATION: KTH Royal Institute of Technology  
PHONE: +46 (0)76-181 7678  
EMAIL: [tingbai@kth.se](mailto:tingbai@kth.se)  
MY HOMEPAGE: <https://kth-tingbai.github.io>  
ADDRESS: Sveavägen 164 J, SE-113 46 Stockholm, Sweden



## EDUCATION AND WORK EXPERIENCE

---

SEP 2020	<b>Postdoctoral Researcher</b> in ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, <b>KTH Royal Institute of Technology</b> , Stockholm, Sweden
– PRESENT	Group: Division of Decision and Control Systems Supervisor: Prof. Jonas Mårtensson and Prof. Karl Henrik Johansson <b>Research Interests:</b> Distributed model predictive control, complex networked systems, coordination and optimization of intelligent transport systems, and structural control system theory, etc.
MAR 2020	<b>Postdoctoral Researcher</b> in COMPUTER SCIENCE AND TECHNOLOGY, <b>Shanghai Jiao Tong University</b> , Shanghai, China
– SEP 2020	Group: Dynamic Systems Optimization Supervisor: Prof. Shaoyuan Li and Prof. Guangtao Xue “Super Postdoctoral fellow” in Shanghai supported by special funding
SEP 2013	<b>Ph.D.</b> in ELECTRONIC INFORMATION AND ELECTRICAL ENGINEERING, <b>Shanghai Jiao Tong University</b> , Shanghai, China
– DEC 2019	Major: Control Science and Engineering, Thesis: “Design and Synthesis of Distributed Reconfigurable Predictive Control Systems”   Supervisor: Prof. Shaoyuan Li
SEP 2009	<b>Bachelor</b> in ENGINEERING, <b>Northwestern Polytechnical University</b> , Xi’an, China
– JUN 2013	Major: Automation   GPA: 87.77/100 (Top 3%) Thesis: “Research on the Principle Prototype of Soft PLC based on Embedded Systems” Comprehensive Ranking: <b>No.1</b> in the School

## LANGUAGE AND PROGRAMMING SKILLS

---

Language: CHINESE (Native language)  
ENGLISH (Fluent, CET 6)  
Professional: C (National Computer Rank Examination Band 2)  
PYTHON, MATLAB,  $\LaTeX$

## SCHOLARSHIPS AND PRIZES

---

- Future Digileaders 2020 of Digital Futures in Stockholm
- **“Super Postdoctoral Fellow”** in Shanghai, China, supported by special funding
- **Development Scholarship for Outstanding Doctoral Graduates** in Shanghai  
Jiao Tong University | 15 Ph.D. graduates are awarded each year
- Grants sponsored by Shanghai Jiao Tong University alumni
- Excellent Graduate of Northwestern Polytechnical University
- Excellent Graduation Thesis of Northwestern Polytechnical University
- First-class Scholarship of Northwestern Polytechnical University
- Miyoshi Outstanding Student of Northwestern Polytechnical University
- Advanced Individual in Social Practice of Northwestern Polytechnical University
- Special Award for New College Students | **Top 1%** in Northwestern Polytechnical University
- “Ji Wenmei” Special Scholarship in Northwestern Polytechnical University
- “Wu Yajun” Special Scholarship in Northwestern Polytechnical University
- “Kun Chuan” Special Scholarship in Northwestern Polytechnical University
- Mathematical Contest in Modeling for College Students (1st place in school)
- Improvement Innovation Competition in Industry (1st place in school)
- Industrial Engineering Creative Competition (2nd place in Shaanxi Province)
- Principle & Application of Microcomputer Experimental Contest (2nd place in school)
- Advanced Mathematics Contest (3rd place in Shaanxi Province)

## MAJOR PROJECTS (WORKED ON)

---

- 2020–2022: “Economic and Environmental Impacts of Multi-Brand Platooning”.  
(The Horizon 2020 through the Project ENSEMBLE in the European Union)
- 2019–2020: “Science and Technology Innovation in 2030–New Generation of AI”.  
(The Major Program of the National Natural Science Foundation of China)
- 2017–2019: “Design and Synthesis of Distributed Predictive Control Systems under the Framework of Cyber-Physical Systems (CPSs)”.  
(The National Program on Key Basic Research Project of China)
- 2014–2017: “Strategies and Algorithms Developed for Addressing Real-Time Constrained Optimization Problems in Large-Scale Engineering Systems”.  
(The National Natural Science Foundation of China)

## PUBLICATION LIST

---

- J8. T. Bai, Y. Li, K. H. Johansson, and J. Mårtensson, "Rollout-based charging strategy for electric trucks with hours-of-service regulations". *IEEE Control Systems Letters*, 7, 2167-2172, 2023.
- J7. T. Bai, A. Johansson, S. Li, K. H. Johansson, and J. Mårtensson, "A third-party platoon coordination service: Pricing under government subsidies". *Asian Journal of Control*, 2023.
- J6. A. Johansson, T. Bai, K. H. Johansson, and J. Mårtensson, "Platoon cooperation across carriers: From system architecture to coordination". *IEEE Intelligent Transportation Systems Magazine*, 15:3, 132-144, 2023.
- J5. L. Jiang, J. Ou, R. Liu, Y. Zou, T. Xie, H. Xiao, T. Bai, "RMAU-Net: Residual multi-scale attention U-net for liver and tumor segmentation in CT images". *Computers in Biology and Medicine*, 106838, 2023.
- J4. T. Bai, S. Li, and Y. Zou, "Distributed MPC for reconfigurable architecture systems via alternating direction method of multipliers". *IEEE/CAA Journal of Automatica Sinica*, 8:7, 1336-1344, 2020.
- J3. T. Bai, S. Li, Y. Zou, and X. Yin, "Block-based minimum input design for the structural controllability of complex networks". *Automatica*, 107: 68-76, 2019.
- J2. T. Bai, S. Li, and Y. Zheng, "Distributed model predictive control for networked plant-wide systems with neighborhood cooperation". *IEEE/CAA Journal of Automatica Sinica*, 6:1, 108-117, 2019.
- J1. T. Bai, S. Li, and Y. Zou, "Minimum input selection of reconfigurable architecture systems for structural controllability". *SCIENCE CHINA Information Sciences*, 62:1, 019201, 2019.
- C5. T. Bai, A. Johansson, K. H. Johansson, and J. Mårtensson, "Approximate dynamic programming for platoon coordination under hours-of-service regulations". *61st IEEE Conference on Decision and Control (CDC)*, Cancun, Mexico, 7663-7669, 2022.
- C4. T. Bai, A. Johansson, S. Li, K. H. Johansson, and J. Mårtensson, "A pricing rule for third-party platoon coordination service provider". *13th IEEE Asian Control Conference (ASCC)*, Korea, 2344-2349, 2022.
- C3. T. Bai, A. Johansson, K. H. Johansson, and J. Mårtensson, "Event-triggered distributed model predictive control for platoon coordination at hubs in a transport system". *60th IEEE Conference on Decision and Control (CDC)*, Austin, TX, USA, 1198-1204, 2021.
- C2. T. Bai and S. Li, "Distributed MPC for reconfigurable architecture systems via alternating direction method of multipliers". *29th Chinese Process Control Conference*, Shenyang, China, 1-6, 2018. **(Best student paper-final list)**
- C1. T. Bai, S. Li, and D. Huang, "Less attention event-driven model predictive control of time-delay system". *10th IEEE Asian Control Conference (ASCC)*, Malaysia, 1-6, 2015.