# Yuwen Ma

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### RESEARCH FOCUS

• Distributed stochastic optimization, Differential privacy, cooperative control, Multi-agent system.

#### **EDUCATION**

- PhD student, University College London, department of Electronic and Electrical Engineering. 2024—Supervisor: Prof. Sarah Spurgeon.
- M.E., Shanghai Jiao Tong University, department of Automation, Shanghai. 2021 2024.03 Thesis title: Output-feedback consensus controller of multi-agent systems without inter-controller communication. Supervisor: Prof. Xianwei Li.
- B.E., Beihang University, school of Automation Science and Electrical Engineering, Beijing. 2017 2021 Thesis title: Design of flight attitude trajectory based on multiple differentiators. Supervisor: Prof. Li Fu.

#### RESEARCH PUBLICATIONS

#### Journal Articles

- 1. Y. Ma, X. Li, S. Li and Z. Lin, "Reduced-order consensus protocols with pure relative output: design, existence, and dual results", IEEE Transactions on Automatic Control, 2025. [Publisher]
- 2. Y. Ma, X. Li, and S. Li, "A reduced-order protocol for linear multi-agent consensus without inter-controller communication," Acta Automatica Sinica, 2023, 49(9): 1836–1844. [Publisher]

## Conference Proceedings

- 3. Y. Ma, X. Li, and S. Li, "Consensus of linear multi-agent systems with pure relative output through fully distributed reduced-order protocols," IFAC-PapersOnLine, 2023, 56(2): 10162—10167. [Publisher]
- 4. Y. Ma, X. Li, and S. Li, "A novel protocol with pure relative output information for consensus of linear multiagent systems," in Proceedings of the 61st IEEE Conference on Decision and Control, Cancun, Mexico, 2022, pp.340–345. [Publisher]
- 5. Y. Ma, Yongqiang Wang, Sarah K. Spurgeon, Boli Chen "Distributed Finite-Horizon Optimal Control for Consensus with Differential Privacy Guarantees", accepted by Proceedings of the 64st IEEE Conference on Decision and Control, 2025.

## SELECTED AWARDS & EXPERIENCE

#### Awards and Achievements

• Grand Prize in 7th China Industrial Intelligence Challenge, Shanghai.	2019
• Grand Prize of Disciplinary Competition Scholarship, Beihang University.	2020
• First level Scholarship, Shanghai Jiao Tong University.	2021 - 2023
• The First Prize of CASC Scholarship.	2022
• National Scholarship, Ministry of Education, China. (top 1% student).	2023
• Excellent Graduate of Shanghai Jiao Tong University.	2024
• EPSRC Doctoral Training Partnerships, UK Research and Innovation.	2024
• Best Master's Thesis awarded by the Shanghai Association of Automation.	2025

#### **Professional Services**

• Reviewer for TITS, TCNS, TCDS, CDC, ECC, ICCA.