

# Yubo Bai

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**Date of Birth:** February 02, 1998  
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**Nationality:** Chinese  
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**Date:** September 11, 2025



## Research experience

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- Sep. 2025 – Present**      **Postdoctoral Researcher in Stabilization of Evolution Systems**  
CERMICS, École nationale des ponts et chaussées, Champs-sur-Marne, France  
Supervisor: Amaury Hayat
- Jan. 2023 – Jan. 2025**      **Visiting Ph.D. student in Boundary Control of Partial Differential Equations**  
Gipsa-lab, Univ. Grenoble Alpes, Grenoble, France  
Supervisor: Christophe Prieur

## Education

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- Sep. 2021 – Jun. 2025**      **Ph.D. in Applied Mathematics (Control of Partial Differential Equations)**  
School of mathematical Sciences, Fudan University, Shanghai, China  
**Integrated M.S. to Ph.D. Program**  
Thesis title: Control problems of two types of partial differential equations  
Advisor: Zhiqiang Wang, co-advisor: Christophe Prieur
- Sep. 2019 – Jun. 2021**      **M.S. student in Applied Mathematics**  
School of mathematical Sciences, Fudan University, Shanghai, China  
Transitioned to Ph.D. program in Sep. 2021 as part of the integrated M.S. to Ph.D. program.
- Sep. 2015 – Jun. 2019**      **B.S. in Mathematics and Applied Mathematics**  
School of mathematical Sciences, Fudan University, Shanghai, China

## Talks

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- Jun. 2025**      **Finite-time observer for a time-varying cascade of an ODE in a system of balance laws**  
5th IFAC Workshop on Control of Systems Governed by Partial Differential Equations (CPDE 2025), Beijing, China
- May 2024**      **Finite-time output regulation for time-varying  $2 \times 2$  hyperbolic systems**

## Publications

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### Journal articles:

- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, Finite-time output regulation for time-varying  $2 \times 2$  hyperbolic systems, *IMA Journal of Mathematical Control and Information*, vol. 42 (3), pp. dnaf024, 2025.
- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, Finite-time output regulation for linear time-varying hyperbolic balance laws, *SIAM Journal on Control and Optimization*, vol. 63 (4), pp. 2427-2450, 2025.
- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, Exact controllability for a Rayleigh beam with piezoelectric actuator, *Systems & Control Letters*, vol. 186, pp. 105759, 2024.
- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, Stabilization of a Rayleigh beam with collocated piezoelectric sensor/actuator, *Evolution Equations and Control Theory*, vol. 13 (1), pp. 67-97, 2024.

### Conference papers:

- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, Finite-time observer for a time-varying cascade of an ODE in a system of balance laws, *IFAC-PapersOnLine*, vol. 59 (8), pp. 137-142, 2025, 5th IFAC Workshop on Control of Systems Governed by Partial Differential Equations - CPDE 2025.
- Yubo Bai, Christophe Prieur, and Zhiqiang Wang, A note on controllability and non-controllability for a Rayleigh beam with piezoelectric actuator, *SIAM Conference on Control and Its Applications (CT'23)*, Philadelphia (PA), USA, 2023.