

Jichao Li

Ph.D. in Aerospace

National Key Laboratory of Aerodynamic Design and Research

Northwestern Polytechnical University

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Education

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2016 - 2018 | Visting Ph.D. · Aerospace Engineering
University of Michigan, Ann Arbor, USA
(supervised by Prof. Joaquim R. R. A. Martins) |
| 2013 - 2018 | Ph.D. · Aerospace Engineering (Fluid Mechanics)
Northwestern Polytechnical University, Xi'an, China
(supervised by Prof. Jinsheng Cai) |
| 2009 - 2013 | B.E. · Flight Vehicle Design and Engineering
Northwestern Polytechnical University, Xi'an, China
(supervised by Prof. Kun Qu) |

Research Interests

- Reduced-order Model
- Adjoint Method
- Surrogate Methods
- Aerodynamic Shape Optimization

Journal Papers

1. Jichao Li, M. A. Bouhlel, and J. R. A. A. Martins (2018). Data-based Approach for Fast Airfoil Analysis and Optimization. *AIAA Journal*. (Accepted)
2. Jichao Li, J. Cai, and K. Qu (2018). Surrogate-based Aerodynamic Shape Optimization with the Active Subspace Method. *Structural and Multidisciplinary Optimization*. doi:[10.1007/s00158-018-2073-5](https://doi.org/10.1007/s00158-018-2073-5)
3. Jichao Li, J. Cai, and K. Qu (2018). Adjoint-Based Two-Step Optimization Method Using Proper Orthogonal Decomposition and Domain Decomposition. *AIAA Journal*. doi:[10.2514/1.J055773](https://doi.org/10.2514/1.J055773)
4. K. Qu, Jichao Li, and J. Cai (2015). Method of Linearizing Computational Fluid Dynamics Model and its Applications. *Acta Aeronautica et Astronautica Sinica (In Chinese)*. doi:[10.7527/S1000-6893.2015.0035](https://doi.org/10.7527/S1000-6893.2015.0035)

Conference Papers

1. Jichao Li, J. Cai, and K. Qu (2018). Drag Reduction of Transonic Wings with Surrogate-based Optimization. *2018 Asia-Pacific International Symposium on Aerospace Technology*. (Accepted)

2. Jichao Li, M. A. Bouhlel, and J. R. A. A. Martins (2018). A Data-based Approach for Fast Airfoil Analysis and Optimization. *2018 AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*. doi:[10.2514/6.2018-1383](https://doi.org/10.2514/6.2018-1383)
3. Jichao Li, K. Qu, J. Cai, and C. Cao (2016). Adjoint Approach based on Reduced-order Model for Steady PDE Systems. *17th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference*. doi:[10.2514/6.2016-3668](https://doi.org/10.2514/6.2016-3668)

Awards & Honors

2018	Best Student Paper Award (Finalist), AIAA SciTech
2016	State Scholarship, China Scholarship Council
2013	Graduate Enrollment Scholarship (Grade 1), NPU, China
2013	Honors College Graduate Student, NPU, China [<i>Top 5%</i>]
2010, 2011, 2012	Outstanding Student Scholarship (Grade 1), NPU, China

Expertise & Skills

Languages	Mandarin Chinese, English.
Programming	Fortran, Python, C, Shell, L ^A T _E X.
Tools	Linux, Matplotlib, Electron.

Referees

Joaquim R. R. A. Martins

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Jinsheng Cai

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