Chensheng **Luo**

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I am a master student in fluid mechanics at Beihang University - CentraleSupélec, under the supervision of Prof. Fang Le. My research interest mainly relies on the analysis of compressible turbulence, specially its energy transfer.

Education

Master of Engineering in *International Engineer* — *09/2021-06/2024(expt.)*
ECOLE CENTRALE DE PÉKIN,BEIHANG UNIVERSITY — *Beijing,China*

- Major in Fluid Mech. (Turbulence). Completion of the Master's Thesis
- Teaching Assistant of the course Fluid Mech. at Beihang University (Centrale Pékin)

General Engineer Degree — *09/2020-06/2022*
CENTRALESUPÉLEC, UNIVERSITÉ PARIS-SACLAY — *Paris,France*

- Double-degree program, general engineering education & specialization in mechanics
- GPA: 4.295 / 4.33, Top 5% in more than 900 students
- **Concerned course**: PDE, Continuum Mech., Sci. of Transfer, Fluid Mech., FEM, FVM & FDM method

Bachelor of Science in *Mathematics and Applied Mathematics* — *09/2017-06/2021*
ECOLE CENTRALE DE PÉKIN,BEIHANG UNIVERSITY — *Beijing,China*

- French-style preparatory class education (Mathematics & Physics), Note: 94.61 / 100, GPA: 3.92 / 4, Scholar Rank: 1 / 99

Awards

- National Scholarship for 2017-2018, 2018-2019, 2019-2020
- Excellent Undergraduate Student of Beijing (Top 3%), Merit Student of Beijing (Top 1%)
- Shen Yuan Honor Award Nomination for 2020 (10 winners & 10 nominations / year in Beihang)

Experiences

Master Thesis | 2D Compressible Turbulence Energy Transfer Study — *12/2022-05/2024*
LABORATORY OF MATHEMATICS & PHYSICS - LABORATORY OF COMPLEX SYSTEM (BEIHANG UNIVERISTY) — *Beijing,China*

- Analytical derivation of energy transfer formula and properties
- Numerical study of 2D compressible turbulence with DNS method

Internship | CAE Algorithm Engineer — *02/2023-08/2023*
SUPRIEUM (适创科技) — *Beijing & Suzhou, China*

- Development of a compressible fluid Discontinuous Galerkin Solver
- Maintenance of existing Finite Element Method code

Research | Dynamic Arlequin Coupling Method Solver — *12/2020-06/2022*
LABORATORY OF MECHANICS PARIS-SACLAY (UNIVERSITÉ PARIS-SACLAY) — *Paris,France*

- Theoretical study of dynamic Arlequin coupling method and Newmark method
- Implementation of open-source FEM solver (CArl-Dyn) based on C++ packages (libmesh & PETSc)
- Code evaluation under High Performance Calculation (HPC) environment

Internship | Summer School Teacher — *07/2021-08/2021*
MATHEMATICS DEPARTMENT OF CENTRALESUPÉLEC (UNIVERSITÉ PARIS-SACLAY) — *Paris,France*

- Preparation of level separation exam and course material
- Teach articulation mathematics courses in French to 2 advanced groups (20 students)

Publications

- **Luo Chensheng**, Mou Ruiyong, Huang Xingrong, Huang Weixi, Fang Le, Free Streamline-boundary Layer Model for Small-amplitude Oscillation Regime of Square Cylinder Under Vortex-induced Rotation. Journal of Dynamics and Control,2023,21(6):55-65.

Languages

- **English**: Fluent - IELTS 7.0 / 9.0
- **French** : Fluent - DALF C2
- **Mandarin**: Native

Informatic Skills

- Windows, Linux, HPC, Arm Forge
- **C++, Fortran**, MATLAB, Python, Julia
- LaTeX, Typst, Git, COMSOL, Tecplot, ParaView

Activites

- 05/2021-05/2022: President of Chinese Club - CentraleSupélec
- 07/2018-08/2019: Vice President of Beihang University Orienteering Association