Hang Zhou

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Employment and Education

2017 – present **École Polytechnique, France**
- Professor, 2023 – present.
- Assistant Professor (tenured), 2017 – 2023.
- Habilitation in Computer Science (2022).

2015 – 2017 **Max Planck Institute, Germany**
- Postdoctoral Researcher, hosted by Kurt Mehlhorn.

2009 – 2015 **École Normale Supérieure de Paris, France**
- PhD in Computer Science (2015). Advisor: Claire Mathieu.
- Master in Computer Science (2012). Advisor: Marc Lelarge.
- Bachelor in Computer Science (2010).

2007 – 2009 **Peking University, China**

Publications

Author list is in alphabetical order as is customary in theoretical computer science.

Math. Program.'25 A Tight $(1.5+\epsilon)$-Approximation for Unsplittable Capacitated Vehicle Routing on Trees.
Claire Mathieu and Hang Zhou.
Mathematical Programming, 2025.

ESA'24 Euclidean Capacitated Vehicle Routing in the Random Setting: A 1.55-Approximation Algorithm.
Zipei Nie and Hang Zhou.
European Symposium on Algorithms, 2024.

SoCG'24 Faster Approximation Scheme for Euclidean k-TSP.
Ernest van Wijland and Hang Zhou.
International Symposium on Computational Geometry, 2024.

SOSA'23 Capacitated Vehicle Routing in Graphic Metrics.
Tobias Mömke and Hang Zhou.
SIAM Symposium on Simplicity in Algorithms, 2023.

TALG'23 A PTAS for Capacitated Vehicle Routing on Trees.
Claire Mathieu and Hang Zhou.
ACM Transactions on Algorithms, 2023.

ICALP'23 A Tight $(1.5+\epsilon)$-Approximation for Unsplittable Capacitated Vehicle Routing on Trees.
Claire Mathieu and Hang Zhou.
EATCS International Colloquium on Automata, Languages and Programming, 2023.

STACS'23 An Approximation Algorithm for Distance-Constrained Vehicle Routing on Trees.
Marc Dufay, Claire Mathieu, and Hang Zhou.
International Symposium on Theoretical Aspects of Computer Science, 2023.

RSA'23 A Simple Algorithm for Graph Reconstruction.
Claire Mathieu and Hang Zhou.
Random Structures and Algorithms, 2023.

ITCS'23 Unsplittable Euclidean Capacitated Vehicle Routing: A $(2+\epsilon)$-Approximation Algorithm.
Fabrizio Grandoni, Claire Mathieu, and Hang Zhou.
Innovations in Theoretical Computer Science, 2023.

Algorithmica'23 Correlation Clustering and Two-edge-connected Augmentation for Planar Graphs.
Philip Klein, Claire Mathieu, and Hang Zhou.
Algorithmica, 2023.

ICALP'22 A PTAS for Capacitated Vehicle Routing on Trees.
Claire Mathieu and Hang Zhou.
EATCS International Colloquium on Automata, Languages and Programming, 2022.

RSA'22 Iterated Tour Partitioning for Euclidean Capacitated Vehicle Routing.
Claire Mathieu and Hang Zhou.
Random Structures and Algorithms, 2022.

ESA'21 A Simple Algorithm for Graph Reconstruction.
Claire Mathieu and Hang Zhou.
European Symposium on Algorithms, 2021.

ISAAC'21 Probabilistic Analysis of Euclidean Capacitated Vehicle Routing.
Claire Mathieu and Hang Zhou.
International Symposium on Algorithms and Computation, 2021.

STOC'18 A $(5/3+\epsilon)$-Approximation for Unsplittable Flow on a Path: Placing Small Tasks into Boxes.
Fabrizio Grandoni, Tobias Mömke, Andreas Wiese, and Hang Zhou.
ACM Symposium on Theory of Computing, 2018.

TALG'18 Graph Reconstruction and Verification.
Sampath Kannan, Claire Mathieu, and Hang Zhou.
ACM Transactions on Algorithms, 2018.

CC'18 Backtracking-Assisted Multiplication.
Houda Ferradi, Rémi Géraud, Diana Maimut, David Naccache, and Hang Zhou.
Cryptography and Communications, 2018.

SODA'17 Optimization of Bootstrapping in Circuits.
Fabrice Benhamouda, Tancrède Lepoint, Claire Mathieu, and Hang Zhou.
ACM-SIAM Symposium on Discrete Algorithms, 2017.

SODA'17 To Augment or Not to Augment: Solving Unsplittable Flow on a Path by Creating Slack.
Fabrizio Grandoni, Tobias Mömke, Andreas Wiese, and Hang Zhou.
ACM-SIAM Symposium on Discrete Algorithms, 2017.

ICALP'15 Near-Linear Query Complexity for Graph Inference.
Sampath Kannan, Claire Mathieu, and Hang Zhou.
EATCS International Colloquium on Automata, Languages and Programming, 2015.

STACS'15 Correlation Clustering and Two-edge-connected Augmentation for Planar Graphs.
Philip Klein, Claire Mathieu, and Hang Zhou.
International Symposium on Theoretical Aspects of Computer Science, 2015.

TCS'14 Sublinear-Time Algorithms for Monomer-Dimer Systems on Bounded Degree Graphs.
Marc Lelarge and Hang Zhou.
Theoretical Computer Science, 2014.

ICALP'13 Graph Reconstruction via Distance Oracles.
Claire Mathieu and Hang Zhou.
EATCS International Colloquium on Automata, Languages and Programming, 2013.

ISAAC'13 Sublinear-Time Algorithms for Monomer-Dimer Systems on Bounded Degree Graphs.
Marc Lelarge and Hang Zhou.
International Symposium on Algorithms and Computation, 2013.

Awards and Grants

- **Lise Meitner Award** for Excellent Women in Computer Science, 2016
- Grant of Hi!Paris, principal investigator, 2022–2025
- International Selection Fellowship, École Normale Supérieure, 2009–2012
- Chinese Olympiad in Informatics:
  - Silver Medal (2006) and Bronze Medal (2005) in the National Finalists' Olympiad
  - First Prize (2003, 2004, 2005, 2006) in the National Olympiad

- First Prize, Mathematics Olympiad in Jiangsu Province, China, 2003
- Second Prize, Physics Olympiad in Jiangsu Province, China, 2003

Teaching

- Approximation Algorithms. Parisian Master of Research in Computer Science (MPRI).
- International Collegiate Programming Contest (ICPC) Training.
  Coached the École Polytechnique team that won the championship in ICPC Southwestern Europe Regional Contest (SWERC 2020) and three times advanced to ICPC World Finals.
- Competitive Programming. École Polytechnique.
- Algorithms and Advanced Programming. École Polytechnique.
- Introduction to Algorithms. École Polytechnique.
- Approximation Algorithms. Max Planck Institute.
- Design and Analysis of Algorithms (tutorial classes). École Polytechnique.

Supervision

- Ernest van Wijland. Master thesis with highest grade at the Parisian Master of Research in Computer Science (MPRI); leading to a publication at SoCG'24.
- Marc Dufay, co-advised with Claire Mathieu. Master thesis winning award from the French Academy of Sciences; leading to a publication at STACS'23.

Program Committees

- International Colloquium on Automata, Languages and Programming (ICALP), 2026.
- International Colloquium on Automata, Languages and Programming (ICALP), 2025.
- International Symposium on Theoretical Aspects of Computer Science (STACS), 2024.
- SIAM Symposium on Simplicity in Algorithms (SOSA), 2023.

Responsibilities

- Co-organizer of the workshop *AlgoFest* – in honor of Claire Mathieu's 60^{th} birthday, Institut Henri Poincaré, 2025.
- Member of the Professor Hiring Committee, Université Paris Cité, 2024.
- Member of the Faculty Hiring Committee, École Polytechnique, 2019, 2021, 2022.
- Member of the Postdoc Selection Committee, Max Planck Institute, 2017.
- Member of the Master Selection Committee, Max Planck Institute, 2016–2017.
- Reviewer for ACM Symposium on Theory of Computing (STOC), IEEE Symposium on Foundations of Computer Science (FOCS), SIAM Journal on Computing (SICOMP), ACM-SIAM Symposium on Discrete Algorithms (SODA), International Symposium on Computational Geometry (SoCG), EATCS International Colloquium on Automata, Languages and Programming (ICALP), ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), European Symposium on Algorithms (ESA), International Symposium on Theoretical Aspects of Computer Science (STACS), Conference on Integer Programming and Combinatorial Optimization (IPCO), etc.

Selected Talks

- Seminar at University of Oxford, United Kingdom, 2025
- Seminar at École Polytechnique, France, 2025
- Seminar at Université Paris-Saclay, France, 2025
- Scientific Day on Optimization, France, 2024
- Fontainebleau Workshop on Algorithmic Theory of New Data Models, France, 2024
- Seminar at École Polytechnique, France, 2024
- Invited Speaker at the Workshop on Complexity and Algorithms, France, 2023

- French-Israeli Workshop on Foundations of Computer Science, France, 2023
- Seminar at University of Cambridge, United Kingdom, 2023
- Seminar at Université Paris Cité, France, 2022
- EPFL Workshop on Modern Trends in Combinatorial Optimization, Switzerland, 2022
- Bonn Workshop on Combinatorial Optimization, Germany, 2022
- Workshop on Algorithmic Challenges of Big Data, Poland, 2022
- Workshop on Combinatorial Optimization and Approximation Algorithms, Chile, 2022
- Workshop on Complexity and Algorithms, France, 2022
- Seminar at Google, France, 2022
- Colloquium at Collège de France, 2018
- Highlights of Algorithms conference, Germany, 2017
- Workshop for Finalists of German Olympiad in Informatics, Germany, 2017
- Lecture Series at the Max Planck Institutes, Germany, 2016
- Seminar at EPFL, Switzerland, 2016
- Dagstuhl Seminar on Optimization Problems in Planar Graphs, Germany, 2016
- Seminar at École Normale Supérieure, France, 2014
- Seminar at University of Copenhagen, Denmark, 2014
- Seminar at ETH Zürich, Switzerland, 2012
- Seminar at École Polytechnique, France, 2011

Languages

English (fluent), French (fluent), Chinese (fluent), German (advanced)