

Shu LI | PhD Student at Inria and DIENS

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Education

2023–now **PhD in CS**, ARGO of Inria and DIENS, Paris 75012, France

Title Learning in dynamic matching models

Supervisor Ana Bušić

Description Doing

2020–2023 **Master of Science**, Graph Theory and its Application, Shandong University of Technology, Zibo 255000, China

Title On the Matrix-Tree Theorems of Graphs

Supervisor Jianfeng Wang

Description We systematically study various Matrix-Tree Theorems for various graphs with elementary proofs, including directed graphs, mixed graphs, oriented graphs, complex unit gain graphs and signed graphs. Indeed, we provide some novel results, which are extensions of Kirchhoff's Matrix-Tree Theorem.

2015–2019 **Bachelor of Science**, Mathematics and Applied Mathematics, Shandong University of Technology

Courses *Linear Algebra, Advanced Calculus, Probability and Statistics, Applied Probability Statistics, Applied Stochastic Processes, Operational Research*

Publications and Preprints

2023 Matrix-Tree Theorem of digraphs via signless Laplacians

S. Li, L. Lu, J. Wang, W. Wang, *Linear Algebra and its Application*.

Yet more elementary proof of Matrix-Tree Theorem for signed graphs

S. Li, J. Wang, *Algebra Colloquium*.

On graphs with small ranks: old and new results

S. Li, Z. Stanić, J. Wang, *Advances in Mathematics(China)*.

2017 Equivalence Relation and Function

S. Li, H. Li, *Linear Int. J. Trend Res. Dev.*

Preprints Matrix-Tree Theorems for Complex Unit Gain Networks

S. Li, J. Wang, M. Dehmer, M. Brunetti.

A graph discretization of vector Laplace operator

S. Li, L. Lu, J. Wang.

Talks

2023 **On the Matrix-Tree Theorems of Graphs**

The Third SDUT Postgraduate Academic Forum, May, 2023, Zibo, China.

2022 **On graphs with small ranks: old and new results**

The 10th Int'l Combinatorics and Graph Theory Conference (CMS-CGT2022), August, 2022, Harbin, China.

A Survey on Matrix-Tree Theorem of Graphs

The 9th Int'l Symposium on Graph Theory and Combinatorial Algorithms (ORSC-GTCA2022), July, 2022, Hangzhou, China.

Computer skills

Programming Python, SageMath, C/C++, Mathematica

Tools WSL2, Git, \LaTeX

Languages

 Hello  Bonjour  Ni Hao