

Zhenyu.LIAO

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Personal information

Date of Birth: 28/Aug/1992

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Education

- Ph.D. in Statistics and Signal Processing, **Laboratoire des signaux et systèmes, CentraleSupélec**, France 2016-present
 - Thesis: A Random Matrix Approach to Deep Neural Networks Analysis.
 - Supervisor: **Prof. Romain Couillet, Prof. Yacine Chitour.**
- M.Sc. in Signal and Image Processing, **CentraleSupélec/Paris-Sud (11)**, France 2014-2016
- B.Sc. in Electronic Engineering, **Paris-Sud (11)**, France 2013-2014
- B.Sc. in Optical & Electronic Information, **HUST**, Wuhan, China 2010-2014

Internship

Intern, LANEAS Group, CentraleSupélec, France. Summer 2016

- Research intern: random matrix analysis of support vector machines.
- Supervisor: **Prof. Romain Couillet**

Intern, l'Institut d'Électronique Fondamentale, CNRS, France. Summer 2015

- Research intern: modeling and circuits design of a thermoelectric system.
- Supervisors: **Damien Querlioz** and **Jérôme Saint Martin**

Intern, FiberhomeTech, China. Summer 2014

- Teaching assistant in a technical conference on telecommunication.
- Supervisor: Prof. Zhiyong TAO

Publications

- **Z. Liao**, R. Couillet, "**Une Analyse des Méthodes de Projections Aléatoires par la Théorie des Matrices Aléatoires (in French)**", (submitted to) Colloque GRETSI'17, Juan Les Pins, France, 2017.
- C. Louart, **Z. Liao**, R. Couillet, "**A Random Matrix Approach to Neural Networks**", (submitted to) Annals of Applied Probability, 2017.
- **Z. Liao**, R. Couillet, "**A Large Dimensional Analysis of Least Squares Support Vector Machines**", (submitted to) Journal of Machine Learning Research, 2017.
- **Z. Liao**, R. Couillet, "**Random Matrices Meet Machine Learning: A Large Dimensional Analysis of LS-SVM**", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'17), New Orleans, USA, 2017.

Research interests

- Machine Learning
- Random Matrix Theory
- Statistics