

Roubing Tang

E-mail: troubing@gmail.com

Research Area: Bayesian inference; Decision-making; Model misspecification

Homepage: <https://troubingwy.github.io>

Education

University of Manchester	09/2023-present
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PhD student of Computer Science

Zhejiang Sci-Tech University	09/2019-06/2022
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Master of Electronics and Communication Engineering; School of Information Science and Technology

- Awarded National Scholarship (8 out of 249)
- Awarded Scholarship for Outstanding Students (top 10%)

Zhejiang Sci-Tech University	09/2015-06/2019
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Bachelor of Electronics Information Science and Technology; School of Information Science and Technology

- Awarded Scholarship for Outstanding Students (top 20%)
- Awarded Outstanding Graduates (top 15%)

Research Projects

Research on Bayesian Experimental Design Under Model Misspecification	09/2023-present
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- Explore the Bayesian Experimental Design under Model misspecification

Research on Automatic Speech Recognition	06/2022-07/2023
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- Research on Speech Recognition by using Kaldi and explore other signal algorithms

Research on Speech Enhancement	12/2021-06/2022
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- Researched status on speech enhancement based on the combination of deep learning and conventional statistical methods.

Research on Multiple Source Localization in Wireless Sensor Networks	01/2020-12/2021
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- The received signal strength (RSS) observations was employed for the multiple source localization (MSL). Then, the MSL problem was reformulated as a joint sparse signal recovery and parametric dictionary learning problem. Finally, a MSL approach was explored based on sparse Bayesian learning and variational inference.
- The related work has been finished and summarized in a regular paper

Research on Single Source Localization based on Deep Neural Network	09/2019-12/2019
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- Single source localization was investigated with a convolutional neural network (CNN), based on the information of time delay of arrival (TDOA) and the associated amplitude.
- The related work has been completed as a submitted patent.

Research on Speaker Tracking based on Distributed Auxiliary Particle Filter	05/2018-11/2018
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- A distributed auxiliary particle filter-based speaker tracking technology was explored.
- The related work has been completed as a patent.

Research Achievements

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- Journal (Digital Signal Processing) <https://doi.org/10.1016/j.dsp.2022.103460>
《Sparse Bayesian Multiple Sources Localization using Variational Approximation for Laplace Priors》
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- Chinese patent Patent No. CN202010050760.9

“一种基于深度神经网络的声源定位方法及系统”

(Sound source localization method and system based on deep neural network)

- Chinese patent Patent No. CN201811031156.0

“一种基于分布式辅助粒子滤波的声源跟踪方法”

(Speaker tracking based on distributed auxiliary particle filter)

- Journal(IEICE)

《Robust Speech Recognition Using Teacher-Student Learning Domain Adaptation》

Skills and Certificates

Language IELTS.

Mathematics

Bayesian Inference; Probability Theory

Programming MATLAB, C/C++, Python