

Curriculum Vitae

MILAJIGULI REXITI
(MILAJIGULI MILAJIGULI)

Education

12/2016 – 3/2020	School of Advanced Studies, University of Camerino, Italy Thesis: Quantum Estimation with Constraints Advisor: Prof. Stefano Mancini Degree: Ph. D. in Mathematics (<i>excellent</i>)
11/2013 – 4/2016	School of Science & Technology, University of Camerino, Italy Thesis: On The Estimation of Quantum Channels with Environment Assistance Advisor: Prof. Stefano Mancini Degree: Master in Applied Mathematics (<i>104/110</i>)
9/ 2001 – 7/2005	Department of Mathematics, Beijing Normal University, China Thesis: Regression Analysis on the Life Quality of the Residence in Xinjiang Advisor: Li yong Degree: B. Sc. in Statistics

Work Experience:

- ◆ 08/2020 – Present
Postdoctoral researcher School of Science & Technology, University of Camerino, Italy
Research interest: Quantum estimation and discrimination theory, characterization of quantum states, statistical data analysis.
- ◆ 08/2006 – 10/2013
Lecturer Department of Mathematics and Physics, Xinjiang Agricultural University, Urumqi, China
Courses taught: Calculus, linear algebra, probability theory & statistics, multivariate statistical analysis: ANOVA, regression, clustering, classification etc.

Publications:

1. M. Rexit, S. Mancini, *Bayesian and Markovian classical feedforward for discriminating amplitude damping channels*, submitted to the journal Quantum Information Processing (2025).
2. S. Khabbazi-Oskouei, L. Memarzadeh, S. Mancini and M. Rexit, *Discrimination of bosonic dephasing quantum channels*, Journal of Physics A: Mathematical and Theoretical **58**, 025302 (2024).
3. M. Rexit, S. Khabbazi-Oskouei, S. Mancini, *On the effectiveness of Bayesian discrete feedback for quantum information reclaiming*, Quantum Information

- Processing **23**, 258 (2024);
4. S. Khabbazi-Oskouei, S. Mancini, M. Rexitì, *Quantum reading of quantum information*, Journal of Physics A: Mathematical and Theoretical **56**, 485302 (2023);
 5. S. Khabbazi-Oskouei, S. Mancini, M. Rexitì, *Profitable entanglement for channel discrimination*, Proceedings of Royal Society A., **479**, 20220796 (2023);
 6. M. Rexitì, L. Memarzadeh and S. Mancini, *Discrimination of dephasing channels*, Journal of Physics A: Mathematical and Theoretical **55**, 245301 (2022);
 7. M. Rexitì, S. Mancini, *Discriminating qubit amplitude damping channels*, Journal of Physics A: Mathematical and Theoretical **54**, 165303 (2021);
 8. M. Rexitì, S. Mancini, *Quantum estimation through a bottleneck*, Quantum Information Processing **19**, 10 (2020);
 9. M. Rexitì, S. Mancini, *Adversarial versus cooperative quantum estimation*, Quantum Information Processing **18**, 102 (2019);
 10. M. Rexitì, D. Felice, S. Mancini, *The Volume of Two-Qubit States by Information Geometry*, Entropy, **20**, 146 (2019);
 11. M. Rexitì, S. Mancini, *Privacy in quantum estimation*, Proceedings **12**, 13 (2019);
 12. M. Rexitì, S. Mancini, *Estimation of two-qubit interactions through channels with environment assistance*, International Journal of Quantum Information **15**, 1750053 (2017).

Conferences & Workshops Attended

Attended Training course “Quantum computing for industry”, 26-27 June 2024, Milan, Italy.

Oral presentations

Quantum 2020, Workshop of the INFN research network “Quantum – finite and infinite quantum systems”, 6 -7 February 2020, Bologna, Italy.

Poster presentations

1. 12th Italian quantum information science conference, 9 – 11 September 2019, Milan, Italy;
2. *Quantum 2019*, 26 May – 1 June 2019, Turin, Italy;
3. *Workshop on Ubiquitous Quantum Physics*, 18 – 01 March 2019, Trieste, Italy;
4. *World Quantum Physics Congress*, 10–13 December 2018, Stockholm, Sweden;
5. 11th Italian quantum information science conference, 9 – 11 September 2018, Catania, Italy;

Participation to national/international research groups/projects

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- PNRR MUR project PE0000023-NQSTI, spoke n.2: Foundations and architectures for quantum sensing and metrology, task: quantum control for improving quantum technologies (current)
 - H2020-FETOPEN “Quantum readout techniques and technologies”
 - INFN CSN4 Specific Initiative “QUANTUM”

Language & Computer Skills

Mother Tongue: Uyghur

Other: Chinese Mandarin (Fluent)

English (Good)

Italian (B1)

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- **Programming Languages:** Mathematica, MATLAB, Python, R, SQL
 - **Data Analysis & Statistical Packages:** SAS, SPSS, S-PLUS
 - **Development Environments:** Jupyter Notebook, Anaconda
 - **Operating Systems:** MS-Windows