Ran Cheng

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Education

- Ph.D., Physics, The University of Texas at Austin, 2014
- B.S., Applied Physics (with honor), Huazhong University of Science and Technology, 2008

Employment

- University of California, Riverside
  Associate Professor (with tenure), 07/2025 – Present
  Assistant Professor (tenure-track), 07/2018 – 06/2025
- Carnegie Mellon University
  Postdoctoral Research Associate, 08/2014 – 06/2018

Grants & Funding

- 07/2024 – Present, NSF CAREER Award, PI
- 07/2024 – Present, W.M. Keck Foundation, Co-PI
- 07/2024 – Present, UC Regents' Faculty Development Award, PI
- 06/2019 – 09/2024, DoD-AFOSR, MURI Award, sub-award PI
- 2021 – 2022, UC Regents' Faculty Fellowship, PI
- 2019 – 2020, DoE-EFRC, Seed grant, PI

Honors & Awards

- UC Regents' Faculty Development Award, 2024
- UC Regents' Faculty Fellowship, 2021
- Omnibus Research & Travel Award, UCR Academic Senate, 2020
- Best Poster Award, Pittsburgh Quantum Institute, 2016
- Professional Development Award, UT-Austin, *twice* in 2011 and 2013
- Best Thesis Award (1st place in Physics) & Graduate with honor, HUST, 2008
- National Scholarship (highest undergraduate award in China), 2007

Teaching

- EE 230 — Mathematical Methods for Electrical Engineers (every *Fall* since 2018)
- EE 220A — Introduction to Quantum Magnetism (every other *Winter* since 2020)
- EE 220B — Advanced Spintronics & Nanomagnetic Devices (every other *Winter* since 2020)
- EE 260 — Applied Differential Geometry with MATHEMATICA (*Winter* 2025)
- EE 020 — Linear Algebra for Electrical Engineers (every *Spring*, 2020 – 2022)
- EE 116 — Engineering Electromagnetics (every *Spring* since 2023)

Professional Service

- Referee for multiple Journals (PRL, Nature, Science, Nano Letters, *etc.*), *frequent*
- Proposal Reviewer for the Department of Energy, *occasional*
- Panelist & Reviewer for the National Science Foundation, *occasional*
- Judge for RUSD Science Fair, 2022
- Organizer for the APS March meeting 2021, 2022

- Organizer for the MMM conference 2020, 2023
- Session Chair for the APS March meeting, *frequent*
- Session Chair for the annual MMM conference, *frequent*
- Organizer for ECE Colloquium, UC-Riverside, 2019 – 2020
- Organizer for Condensed Matters Matter Seminar, UC-Riverside, since 2024
- Poster Judge for Science 2017, Pittsburgh Quantum Institute, 2017

Books

- *Quantum Algorithms and Applications: A Scaffolding Approach*, P. Y. Lee, R. Cheng & J. M. Yu, Polaris QCI Publishing, *forthcoming*
- *Mathematical Foundations of Quantum Computing: A Scaffolding Approach*, P. Y. Lee, J. M. Yu & R. Cheng, Polaris QCI Publishing, 2025
- *Quantum Computing and Information: A Scaffolding Approach*, P. Y. Lee, H. Ji & R. Cheng, Polaris QCI Publishing, 2024
- *Physical Effects of Geometric Phases*, Q. Niu, B. Wu, D. Xiao, M.-C. Chang, & R. Cheng, World Scientific Publishing Co. Pte. Ltd., Singapore, 2017

Publications

Google Scholar Profile: https://scholar.google.com/citations?user=iq8N8tsAAAAJ&hl=en