UNIVERSITY of WASHINGTON

QUANTUMX

QuantumX course challenges and inspires across disciplines

Quantum information is revolutionizing science and technology at an unprecedented pace. Teaching the subject is as exhilarating as it is demanding. Professor Mark Rudner found this particularly true while teaching Phys522A: Implementation of Quantum Information.

QuantumX alumna Ewin Tang Awarded 2025 Maryam Mirzakhani New Frontiers Prize

QuantumX and AQET graduate student Ewin Tang won the 2025 Maryam Mirzakhani New Frontiers Prize for “developing classical analogs of quantum algorithms for machine learning and linear algebra, and for advances in quantum machine learning on quantum data.” She

holds a Ph.D. in computer science and engineering at the UW and is now a Miller postdoctoral fellow at UC Berkeley.

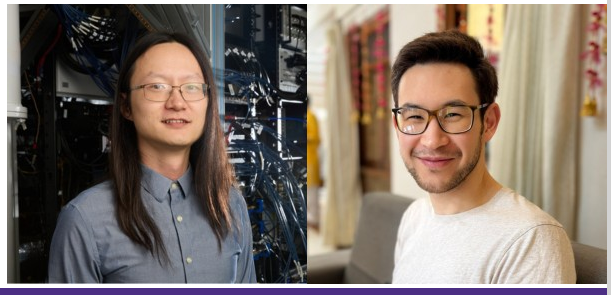
Xiaodong Xu receives NAS award for scientific discovery

Professor Xiaodong Xu receives the 2025 National Academy of Sciences (NAS) Award for Scientific Discovery for his seminal work on the experimental observation of the fractional quantum anomalous Hall effect.

Xiaosong Li elected AAAS Fellow

Professor Xiaosong Li, whose research is at the intersection of physics, chemistry, materials science, mathematics and scientific computing, was elected as a Fellow of the American Association for the Advancement of Science. He was honored for his contributions to the development and application of time-dependent quantum theory and relativistic electronic structure theory.

Quantum Computing faculty receive Google Research Scholar funding



Professors Mo Chen and Andrea Wei Coladangelo have been recognized as Google's 2025 Research Scholars in the area of quantum computing.

SELECTED PUBLICATIONS

The future of colloidal semiconductor nanocrystals
Raffaella Buonsanti, Brandi Cossairt
ACS Publications

Accuracy guarantees and quantum advantage in analog open quantum simulation with and without noise
Vikram Kashyap, Georgios Styliaris, Sara Mouradian, J. Ignacio Cirac, Rahul Trivedi

APS Physical Review Journal

Free space few-photon nonlinearity in critically coupled polaritonic metasurfaces
Jie Fang, Abhinav Kala, David S. Ginger, Vinod M. Menon, Lih Y. Lin, Arka Majumdar
Arxiv.org

Realization of fermionic Laughlin state on a quantum processor
Lingnan Shen, Mao Lin, Cedric Yen-Yu Lin, Di Xiao, Ting Cao
Arxiv.org

Roadmap for Pphotonics with 2D materials
F. Javier García de Abajo, D. N. Basov, Kenneth S. Burch, Liuyan Zhao, Xiaodong Xu
Arxiv.org

Strongly coupled photonic molecules as doubly-coupled oscillators
Kevin C. Smith, Austin G. Nixon, David J. Masiello
Arxiv.org

Structural transitions and melting of two-dimensional ion crystals in RF Traps
Boris V. Pashinsky, Alexander Kato, Boris B. Blinov
MDPI

Microscopic signatures of topology in twisted MoTe2
Ellis Thompson, Xiaodong Xu, Ting Cao, Di Xiao & Matthew Yankowitz
Nature Physics

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