Stanford

Patrick Walsh

Ph.D. Student in Applied Physics, admitted Autumn 2025

Bio

BIO

Patrick graduated with honors from the University of Wisconsin-Madison in 2025 with a B.S. in Applied Math, Engineering, and Physics. He conducted his undergraduate research under Professor Mark Eriksson, where he studied Semiconductor Quantum Dot Qubits. His work focused on developing experimental techniques and numerical tools to automate gate-voltage calibration procedures for quantum dot devices. As an NSF Fellow and graduate student with the Bøttcher group at Stanford, Patrick is interested in using Josephson Junction Arrays to study a variety of problems in condensed matter, including vortex dynamics, quantum phase transitions, and highly correlated materials.

HONORS AND AWARDS

- Graduate Research Fellowship, National Science Foundation (6/13/2025)

Publications

PUBLICATIONS

- **Bootstrapping, autonomous testing, and initialization system for Si/SixGe1-x multi-quantum-dot devices** *PHYSICAL REVIEW APPLIED*
  Kovach, T. J., Schug, D., Wolfe, M. A., Macquarrie, E. R., Walsh, P. J., Eskandari, O. M., Benson, J., Friesen, M., Eriksson, M. A., Zwolak, J. P.
  2026; 25 (1)