



Name: Michael O'Brien

Affiliation: Naval Information Warfare Center Pacific

Position: Cryogenic Electronics Research Engineer

Previous Positions: Researcher, University of Maryland College Park
Researcher, Harvard University

Education: M.S. Northeastern University, 2013

Research Interests/Areas of Expertise: SQUIDs, SQUID Arrays, Cryogenic Systems, Defense Applications of Superconductivity, Superconducting RF devices, High-Temperature Superconductivity, Single Photon Detectors, Astronomy Applications of Superconductivity

Publications:
B. J. Taylor, S. Berggren, M. O'Brien, M. C. de Andrade, B. Higa, and A. Leese de Escobar, "Characterization of large two-dimensional YBa₂Cu₃O_{7- δ} SQUID arrays," *Supercond. Sci. Technol.*, vol. 29, 2016, Art. no. 084003.
S. Berggren, B. J. Taylor, M. C. O'Brien, A. M. L. de Escobar, and M. C. de Andrade, "Bias field gradient effects of large superconducting quantum interference device (SQUID) arrays (SQAs)," in *Proc. IEEE Int. Superconductive Electron. Conf.*, 2019, pp. 1–3.
Liu, X. et al. Paper-based piezoresistive mems sensors. *Lab Chip* 11, 2189–2196 (2011).

Approximate Number of Years in Applied Superconductivity: 9

Membership in Professional Societies: European Society for Applied Superconductivity
National Academy of Inventors

Previous ASC Service: Electronics Program Committee ASC 2024
IEC-IEEE Standards Meeting – ASC 2018, 2022

Service to Related Conferences: IEC-IEEE Standards Meeting – EUCAS 2019, 2023

Other: Session Chair, Naval Applications of Machine Learning 2023, 2024