

# DR. IRIS KINZIE MOWGOOD

COMPUTATIONAL PHYSICIST AND PHYSICS LECTURER

## PERSONAL DATA

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RESEARCH INTERESTS: Computational Physics, Superconductivity, the time-dependent Ginzburg-Landau Equations, and Physics Education.  
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## SCIENTIFIC EDUCATION

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2023	PHD, Computational and Data Sciences Chapman University Orange, CA USA
2016	M.Sc, Physics California State University, Fullerton Fullerton, CA USA
2013	B.Sc, Physics Education University of California, Santa Cruz Santa Cruz, CA USA

## PUBLICATIONS:

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### ORCID ID: [0000-0003-3514-5122](https://orcid.org/0000-0003-3514-5122)

S. Chahid, S.Teknowijoyo, I. Mowgood, and A. Gulian "High-Frequency Diode Effect in Superconducting Nb<sub>3</sub>Sn Microbridges." *Physical Review B*, vol. 107, no. 5, (Feb. 2023)  
<<https://doi.org/10.1103/physrevb.107.054506>>

I. Mowgood, S. Chahid, S.Teknowijoyo, and A. Gulian "Novel results obtained by modeling of dynamic processes in superconductors: phase-slip centers as cooling engines" *Arxiv cond-mat.supr-con*, (Nov. 2022)  
<<https://doi.org/10.1103/physrevb.107.054506>>

I. Mowgood, G. Melkonyan, R. Dulal, S. Teknowijoyo, S. Chahid, and A. Gulian "Violation of Magnetic Flux Conservation by Superconducting Nanorings." *Superconductor Science and Technology*, vol. 35, no. 4, (Feb. 2022), p. 045006, <https://doi.org/10.1088/1361-6668/ac4174>.

A. Gulian, J. Foreman, V. Nikoghosyan, L. Sica, P. Abramian-Barco, J. Tollaksen, G. Melkonyan, I. Mowgood, C. Burdette, R. Dulal, S. Teknowijoyo, S. Chahid, and S. Nussinov "Gravitational Wave Sensors Based on Superconducting Transducers." *Physical Review Research*, vol. 3, no. 4, (Nov. 2021), <https://doi.org/10.1103/physrevresearch.3.043098>.

## TEACHING EXPERIENCE

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since Sept. 2016	Adjunct Physics Lecturer, Chapman University Orange, CA USA
since Sept. 2022	Adjunct Physics Lecturer, Santiago Canyon College Orange, CA USA
Sept. 2016 - June 2018	Adjunct Physics and Astronomy Lecturer Orange Coast College, Costa Mesa, CA USA