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Ph.D. Student in Physics, admitted Autumn 2018

Publications

PUBLICATIONS

- **Surface modification and coherence in lithium niobate SAW resonators.** *Scientific reports*
Gruenke, R. G., Hitchcock, O. A., Wollack, E. A., Sarabalis, C. J., Jankowski, M., McKenna, T. P., Lee, N. R., Safavi-Naeini, A. H.
2024; 14 (1): 6663
- **Strong Dispersive Coupling Between a Mechanical Resonator and a Fluxonium Superconducting Qubit** *PRX QUANTUM*
Lee, N. A., Guo, Y., Cleland, A. Y., Wollack, E., Gruenke, R. G., Makihara, T., Wang, Z., Rajabzadeh, T., Jiang, W., Mayor, F. M., Arrangoiz-Arriola, P., Sarabalis, C. J., Safavi-Naeini, et al
2023; 4 (4)
- **Identifying the Microscopic Nature of Two Level System Loss Channels in Acoustic Devices Using X-ray Photoelectron Spectroscopy and Atomic Force Microscopy.** *Microscopy and microanalysis : the official journal of Microscopy Society of America, Microbeam Analysis Society, Microscopical Society of Canada*
Gruenke, R., Multani, G., Hitchcock, O., Wollack, E. A., Szakiel, E., Sarabalis, C., Lee, N., Cleland, A., Safavi-Naeini, A.
2023; 29 (Supplement_1): 776
- **Quantum state preparation and tomography of entangled mechanical resonators.** *Nature*
Wollack, E. A., Cleland, A. Y., Gruenke, R. G., Wang, Z., Arrangoiz-Arriola, P., Safavi-Naeini, A. H.
2022; 604 (7906): 463-467
- **Loss channels affecting lithium niobate phononic crystal resonators at cryogenic temperature** *APPLIED PHYSICS LETTERS*
Wollack, E., Cleland, A. Y., Arrangoiz-Arriola, P., McKenna, T. P., Gruenke, R. G., Patel, R. N., Jiang, W., Sarabalis, C. J., Safavi-Naeini, A. H.
2021; 118 (12)