

# Stanford

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## Benjamin Ezekiel Feldman

Assistant Professor of Physics

### Bio

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#### ACADEMIC APPOINTMENTS

- Assistant Professor, Physics

#### LINKS

- Feldman Lab: <https://sites.stanford.edu/feldman>

### Teaching

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#### COURSES

##### 2018-19

- Condensed Matter Seminar: APPPHYS 470 (Aut, Win, Spr)
- Thermodynamics, Kinetic Theory, and Statistical Mechanics I: PHYSICS 170 (Aut)

##### 2017-18

- Introduction to Laboratory Physics: PHYSICS 67 (Spr)

#### STANFORD ADVISEES

##### Orals Evaluator

Luca Delacretaz

### Publications

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#### PUBLICATIONS

- **Quantum Hall valley nematics.** *Journal of physics. Condensed matter : an Institute of Physics journal*  
Parameswaran, S. A., Feldman, B.  
2019
- **Interacting multi-channel topological boundary modes in a quantum Hall valley system.** *Nature*  
Randeria, M. T., Agarwal, K., Feldman, B. E., Ding, H., Ji, H., Cava, R. J., Sondhi, S. L., Parameswaran, S. A., Yazdani, A.  
2019
- **Squeezing strong correlations from graphene.** *Science (New York, N.Y.)*  
Feldman, B. E.  
2019; 363 (6431): 1035–36
- **Ferroelectric quantum Hall phase revealed by visualizing Landau level wavefunction interference** *NATURE PHYSICS*  
Randeria, M. T., Feldman, B. E., Wu, F., Ding, H., Gyenis, A., Ji, H., Cava, R. J., MacDonald, A. H., Yazdani, A.

2018; 14 (8): 796-+

- **Visualizing heavy fermion confinement and Pauli-limited superconductivity in layered CeCoIn<sub>5</sub>** *NATURE COMMUNICATIONS*  
Gyenis, A., Feldman, B. E., Randeria, M. T., Peterson, G. A., Bauer, E. D., Aynajian, P., Yazdani, A.  
2018; 9: 549
- **High-resolution studies of the Majorana atomic chain platform** *NATURE PHYSICS*  
Feldman, B. E., Randeria, M. T., Li, J., Jeon, S., Xie, Y., Wang, Z., Drozdov, I. K., Bernevig, B. A., Yazdani, A.  
2017; 13 (3): 286-?
- **Observation of a nematic quantum Hall liquid on the surface of bismuth** *SCIENCE*  
Feldman, B. E., Randeria, M. T., Gyenis, A., Wu, F., Ji, H., Cava, R. J., MacDonald, A. H., Yazdani, A.  
2016; 354 (6310): 316-321
- **Electron-hole asymmetric integer and fractional quantum Hall effect in bilayer graphene** *SCIENCE*  
Kou, A., Feldman, B. E., Levin, A. J., Halperin, B. I., Watanabe, K., Taniguchi, T., Yacoby, A.  
2014; 345 (6192): 55-57
- **Fractional Quantum Hall Phase Transitions and Four-Flux States in Graphene** *PHYSICAL REVIEW LETTERS*  
Feldman, B. E., Levin, A. J., Krauss, B., Abanin, D. A., Halperin, B. I., Smet, J. H., Yacoby, A.  
2013; 111 (7)
- **Unconventional Sequence of Fractional Quantum Hall States in Suspended Graphene** *SCIENCE*  
Feldman, B. E., Krauss, B., Smet, J. H., Yacoby, A.  
2012; 337 (6099): 1196-1199
- **Local Compressibility Measurements of Correlated States in Suspended Bilayer Graphene** *PHYSICAL REVIEW LETTERS*  
Martin, J., Feldman, B. E., Weitz, R. T., Allen, M. T., Yacoby, A.  
2010; 105 (25)
- **Broken-symmetry states and divergent resistance in suspended bilayer graphene** *NATURE PHYSICS*  
Feldman, B. E., Martin, J., Yacoby, A.  
2009; 5 (12): 889-893