

Elise LePage

PhD Candidate
University of California, Berkeley

elepage@berkeley.edu

EDUCATION

University of California, Berkeley, Berkeley, CA
PhD Candidate, Physics, 2019-Present

Perimeter Institute, University of Waterloo, Waterloo, ON, Canada
MS, Theoretical Physics, 2018-2019

Hamilton College, Clinton, NY
BA, Physics and Mathematics, 2014-2018

RESEARCH INTERESTS

Mathematical aspects of mirror symmetry and applications to knot homology

RESEARCH EXPERIENCE

Publications

- “Homological Link Invariants from Floer Theory,” with Aganagic and Rapcak, [arXiv:2305.13480](#).
- “Link Homology from Homological Mirror Symmetry,” invited contribution to *String Math 2022 Proceedings*, [arXiv:2307.07034](#)
- “Quantum corrections to finite radius holography and holographic entanglement entropy” with Donnelly, Li, Pereira, and Shyam, *JHEP* **05** (2020) 006. [arXiv:1909.11402](#).
- “Rational Cherednik algebras of $G(\ell, p, n)$ from the Coulomb perspective” with Webster, [arXiv:1912.00046](#).

Other

- “Cherednik Algebras, Principal Galois Orders, and Coulomb Branches,” master’s thesis, supervised by Ben Webster.
- “On the Quantization of Plane Gravitational Waves in Loop Quantum Gravity,” undergraduate senior thesis, supervised by Seth Major.

INVITED TALKS

- Summer School in Geometric Representation Theory, MIT (June 2023)
- Mathematical Physics Seminar, Perimeter Institute (May 2023)
- Math Student Research Seminar, UC Davis (Jan. 2023)
- Special Session on Heegaard Floer Homology in Topology, Algebra, and Physics, AMS Fall Western Sectional Meeting (Oct. 2022)

MENTORING AND SERVICE

- Berkeley Connect Physics Fellow (Aug. 2023-May 2024)
- Coordinator, POWER-Bay Area, a mentoring program for community college students interested in the physical sciences (Aug. 2021-present)
- Mentor, POWER-Bay Area (Aug. 2020-May 2021)
- President, Women in Physics Club, Hamilton College (Aug. 2017-May 2018)
- Co-founder and President, Association for Women in Mathematics, Hamilton College Chapter (Aug. 2017-May 2018)

TEACHING EXPERIENCE

- Graduate Student Instructor, UC Berkeley (Aug. 2019-Dec. 2022)
- Physics and Math Head Tutor, Quantitative and Symbolic Reasoning Center, Hamilton College (Aug. 2015-Dec. 2017)

**HONORS AND
AWARDS**

- Finalist for LeRoy Apker Award, American Physical Society (2018)
- Elihu Root Fellowship, Hamilton College (2018)
- Southworth Prize in Physics, Hamilton College (2018)