

Francesco Lin - Publication list

Updated 02/25

Research papers

A remark on taut foliations and Floer homology.

Math. Res. Lett. 31 (2025), no. 6, 1819-1825.

Homology cobordism and the geometry of hyperbolic three-manifolds.

Advances in Mathematics 462 (2025).

Monopole Floer homology and invariant theta characteristics.

Journal of the London Mathematical Society (2) 109 (2024), no. 5, Paper No. e12895, 27 pp.

Monopoles, twisted integral cohomology, and Hirsch algebras.

with Mike Miller Eismeier, Geometry & Topology, 28 (2024), no. 8, 36973778.

Monopole Floer homology, eigenvalue multiplicities and the Seifert-Weber dodecahedral space.

with Michael Lipnowski, Int. Math. Res. Not. IMRN 2022, no. 9, 6540-6560.

Indefinite Stein fillings and $Pin(2)$ -monopole Floer homology.

Selecta Mathematica (N.S.) 26 (2020), no. 2.

Monopole Floer homology and SOLV geometry.

Annales Henri Lebesgue, Volume 3 (2020), pp. 1117-1131.

Hyperbolic four-manifolds with vanishing Seiberg-Witten invariants.

with Ian Agol, Characters in low-dimensional topology, 1-8, Contemp. Math., 760 (2020).

The Seiberg-Witten equations and the length spectrum of hyperbolic three-manifolds.

with Michael Lipnowski, J. Amer. Math. Soc. 35 (2021), no. 1, 233-293.

Non-formality in $Pin(2)$ -monopole Floer homology.

Quantum Topology 12 (2021), no. 2, 309-371.

$Pin(2)$ -monopole Floer homology and the Rokhlin invariant.

Compositio Mathematica 154 (2018), no. 12, 2681-2700.

Monopole Floer homology and the spectral geometry of three-manifolds.

Communications in Analysis and Geometry, Vol. 28, No. 5 (2020), pp. 1211-1219.

Bar-Natan's deformation of Khovanov homology and involutive monopole Floer homology.

Mathematische Annalen 373 (2019) no. 1-2, 489-516.

$Pin(2)$ -monopole Floer homology, higher compositions and connected sums.

Journal of Topology 10 (2017), no. 4, 921-969.

The surgery exact triangle in $Pin(2)$ -monopole Floer homology.

Algebraic & Geometric Topology 17-5 (2017), 2915-2960.

Exact Lagrangian caps of Legendrian knots.

Journal of Symplectic Geometry, Vol. 14, No. 1 (2016), pp. 269-295.

**Research
monographs**

A Morse-Bott approach to monopole Floer homology and the Triangulation conjecture.
Memoirs of the AMS, 255 (2018), no. 1221.

**Expository
writings**

Lectures on families of Dirac operators and applications.
Proceedings of Symposia in Pure Mathematics 109 (2024), p. 1-16.

Lecture notes on monopole Floer homology.
Proceedings of the 22nd Gokova Geometry/Topology conference (2016), pp. 39-80.