# Riccardo Pedrotti

Curriculum Vitae

# 2024-2027 Marshall H. Stone Visiting Assistant Professor, University of Massachussetts Amherst, Amherst, MA. 2017-2024 Graduate Studies, University of Texas at Austin, Austin, TX. 2014 – 2017 Master Degree in Mathematics, Rheinischen Friedrich-Wilhelms Universität Bonn, Bonn, DE. 2011 – 2014 Undergraduate Degree in Mathematics, Universitá degli Studi di Trento, Trento, IT. Graduate Thesis Title Applications of fixed point Floer theory to 4-dimensional manifold problems. Supervisor Prof. Timothy Perutz Description I provide a formula for counting rigid pseudo-holomorphic sections of a 4-dimensional Lefschetz fibration over the disk. Master Thesis Title Stable classification of certain families of 4-Manifolds Supervisor Prof. Peter Teichner

Description I worked on the stable classification of smooth, oriented 4-manifolds with fundamental group dihedral groups, in some cases providing a full classification of them.

### Undergraduate Thesis

Title Un'Introduzione alla K-Teoria Topologica Complessa

Supervisor Prof. Edoardo Ballico

Education

Description An introduction to complex topological K-Theory, from the basic definitions to the Bott Periodicity Theorem and Parallelizability conditions for the spheres.

# Research Interests

Symplectic Topology and Geometry, Floer (co)homology, Seiberg-Witten theory, Gauge theory, Algebraic Topology, Bordism, Homotopy theory

## Papers and preprints

In progress Seidel's exact triangle and sections of 4-dimensional Lefschetz fibrations, joint with T. Perutz.

2023 Fixed point Floer cohomology of disjoint Dehn twists on a  $w^+$ -monotone manifold with rational symplectic form, Journal of Symplectic Geometry 2024 vol 22 issue #3.

## Selected talks and conferences

- 09/16/2024 SCGP-Stonybrook. Symplectic Geometry, Gauge Theory, and Low-Dimensional Topology Seminar, Towards a count of holomorphic sections of Lefschetz fibrations over the disc, (Invited speaker) https: //www.math.stonybrook.edu/cal/event.php?ID=6524.
- 10/30/2023 **Stanford Symplectic Geometry seminar**, *Towards a count of holomorphic sections of Lefschetz fibrations over the disc*, (Invited speaker) https://mathematics.stanford.edu/events/symplectic-geometry.
- 10/12/2023 **Rutgers Symplectic seminar**, *Towards a count of holomorphic sections of Lefschetz fibrations over the disc*, (Invited speaker) https://sites.google.com/view/rutgerssymplectic/home.
- 9/22/2023 Columbia Symplectic Geometry and Gauge Theory seminar, Towards a count of holomorphic sections of Lefschetz fibrations over the disc, (Invited speaker) https://math.columbia.edu/~asplund/sggt.
- 6/27/2023 Trisector workshop, (Contributed talk) https://sites.google.com/view/tw2023/.

- 5/27/2023 GTC2023, (Contributed talk) https://topology.franklinresearch.uga.edu/GTC2023.
- 2/11/2023 SCTC II, (Contributed talk) https://www.hiroleetanaka.com/sctc/\_SCTC02-index.php.
- 7/7/2022 **GT GAPS**, Fixed point Floer cohomology of a Dehn twist in a monotone setting and in more general contexts, (Invited speaker) https://www.math.toronto.edu/vivianhe/GT-GAPS.html.
- 5/17/2022 Freemath seminar, Fixed point Floer cohomology of a Dehn twist in a monotone setting and in more general contexts, (Invited speaker) https://freemath.xyz.
- 4/27/2022 **Texas A&M Topology seminar**, Fixed point Floer cohomology of a Dehn twist in a monotone setting and in more general contexts, (Invited speaker) https://www.math.tamu.edu/seminars/topology/index. php.
- 4/23/2022 17th Chico Topology Conference, (Contributed talk)http://tmattman.yourweb.csuchico.edu/CTC. html.
  - 5/2018 Summer Mini-course in complex oriented cohomology at the University of Texas at Austin, (Lectured) I held a four-days long summer course at UT Austin about complex oriented cohomology, generalized orientation and generalized Thom isomorphism. My notes are publicly available on the nLab at https://ncatlab.org/nlab/show/Riccardo+Pedrotti.
- 3/16/2017 **Baby Geometri**, Stable classification of four manifolds, (Invited speaker) http://people.dm.unipi.it/ babygeometri/english/\_site/Baby-Geometri2016-2017.pdf).

### Awards

- 5/2023 2022-2023 Frank Gerth III Teaching Excellence Award.
- 5/2021 2020-2021 Frank Gerth III Teaching Excellence Award.
- 5/2018 2017-2018 Frank Gerth III Graduate Excellence Award.
- 8/2017 **Provost's Graduate Excellence Fellowship**, Two-year fellowship for graduate studies at the University of Texas, Austin.
- 2/2015 Premio di Merito 2014, An award from the University of Trento for outstanding careers.
- 10/2014 **BIGS Qualifying Scholarship**, Two-year scholarship for international students with an excellent Bachelor degree in mathematics.

### Language Skill

- Italian Mother Tongue
- English TOEFL iBT: r30; l29; s24; w24
- German B1 level