Marta Pavelka

Email: pavelka@math.miami.edu
Website: www.martapavelka.com
Phone: +1 (786) 238-6223

EDUCATION

University of Miami Coral Gables, Florida, USA
Ph.D. in Mathematics, Advisor: Bruno Benedetti 2017–May 2023 (expected)

Czech Technical University in Prague Prague, Czech Republic
MSc and BSc (both with Honors) in Mathematical Engineering 2012–2017

  − Thesis: *On-line Operations in Redundant Numeration Systems*, Advisors: Edita Pelantová, Milena Svobodová
  − Can be found at www.linkedin.com/in/martapavelka

RESEARCH INTERESTS

Interaction of Combinatorics with Geometry; especially triangulations of manifolds and, more generally, simplicial complexes.

PUBLICATIONS

[1] B. Benedetti and M. Pavelka, "2-LC triangulated manifolds are exponentially many", *Annales de l'Institut Henri Poincare D*, www.arxiv.org/abs/2106.12136, in press.

[2] B. Benedetti and M. Pavelka, "Five non-Hamiltonian simplicial complexes", www.arxiv.org/abs/2207.06891, submitted.

[3] C. Frougny, M. Pavelka, E. Pelantová, and M. Svobodová, "On-line algorithms for multiplication and division in real and complex numeration systems", *Discrete Mathematics and Theoretical Computer Science*, vol. 21, no. 3, www.arxiv.org/abs/1610.08309, 2019.

SOFTWARE

A Software for Detecting Closure Properties in Simplicial Complexes
Accessible at www.math.miami.edu/~pavelka/scpc/ 2021

PAST AND FUTURE TALKS

- Discrete CATS seminar, University of Kentucky April 2023
  https://www.ms.uky.edu/~readdy/Seminar/
- Topological and Geometric Methods in Combinatorics, AMS Meeting, University of Cincinnati April 2023
  https://www.ams.org/meetings/sectional/2308_deadlines.html
- Carnegie Mellon University April 2023
- Noon Lecture at the Department of Applied Mathematics, Charles University February 2023
  https://www.mff.cuni.cz/en/kam/teaching-and-seminars/noon-lectures/2023/02022023
- Seminario Matesco, University of Cantabria, Spain January 2023
- Mathematics Department Colloquium, University of Hawaii January 2023
- Combinatorics and Geometry Seminar, University of Washington November 2022

https://math.washington.edu/events/series/combinatorics-and-geometry-seminar

- UMN Combinatorics Seminar, University of Minnesota   October 2022
  https://www.daojihuang.me/seminar
- Algebra and Discrete Mathematics, UC Davis   September 2022
  https://www.math.ucdavis.edu/research/seminars?type=6&when=past
- Cornell Discrete Geometry and Combinatorics Seminar, Cornell University   September 2022
  https://pi.math.cornell.edu/~webgeo/
- Geometry meets Combinatorics in Bielefeld, Bielefeld University   September 2022
  https://www.math.uni-bielefeld.de/geocomb/#anchor
- Midsummer Combinatorial Workshop XXVII, Charles University   August 2022
  https://www.mff.cuni.cz/en/kam/events/mcw/mcw-2022
- Discrete Mathematics Days 2022, University of Cantabria   July 2022
  https://dmd2022.unican.es/programme.html
- Norcom 2022, The Arctic University of Norway   June 2022
  https://norcom2022.puremath.no/program/
- Combinatorics Seminar, Royal Institute of Technology (KTH)   December 2021
  https://www.kth.se/math/kalender/kombinatorik?date=2021-12-01&length=31
- Numeration 2015, Université de Lorraine   May 2015
  https://numeration2015.sciencesconf.org/resource/page/id/8.html

Awards

- Teaching Excellence Award by the University of Miami, Department of Mathematics   May 2022
- Award for my MSc research project at the annual Competition for University Students in Science in Mathematics by the Union of Czech and Slovak Mathematicians and Physicists   May 2016

Teaching Activities

The listed classes consisted of about 40 students each.

Courses taught at University of Miami

- Precalculus II, MTH 108   Fall 2022, Spring 2022, Fall 2021, Spring 2021
- Calculus II, MTH 162   Spring 2020
- Calculus I, MTH 161   Fall 2019

Recitations led at the University of Miami

- Calculus II, MTH 162   Spring 2020, Spring 2019, Spring 2018
- Calculus I, MTH 161   Fall 2019, Fall 2018, Fall 2017
- Precalculus Mathematics II, MTH 108   Fall 2020

Recitations led at Czech Technical University in Prague

- Foundations of Mathematical Analysis   Fall 2017