

Mario Stipčić

Postdoctoral Fellow at Grand Challenges Initiative
Chapman University
Schmid College of Science and Technology; Department of Mathematics
One University Drive, Orange, CA

Education

- Ph.D. in Mathematics**, University of Zagreb, Croatia 2020
Dissertation: *Multilinear singular integrals associated with hypergraphs*
Advisor: Vjekoslav Kovač
Graduated with highest distinction (*summa cum laude*).
- M.Sc. in Theoretical Mathematics**, University of Zagreb, Croatia 2015
Thesis: *Wavelet characterizations of Sobolev spaces*
Advisor: Vjekoslav Kovač
Graduated with highest distinction (*summa cum laude*).
- B.Sc. in Mathematics**, University of Zagreb, Croatia 2013

Employment

- Postdoctoral Fellow in the Grand Challenges Initiative, Chapman University, California, USA 2021 - Present
- Postdoctoral Fellow at Faculty of Science, University of Zagreb, Croatia 2021
- Teaching Assistant at Faculty of Science, University of Zagreb, Croatia 2015 - 2021

Awards

- "Brdo" Award for the best teaching assistant in Department of Mathematics, Faculty of Science 2020
- Best presentation, 4th symposium of students of doctoral studies, Faculty of Science 2020
- Rector's award for the best student work of scientific content, University of Zagreb 2015
- Award for the most successful student of Graduate University Program in Theoretical Mathematics 2015
- Award for the most successful student of Undergraduate University Program in Mathematics 2013

Teaching experience

Chapman University (Instructor of Record)

- First Year Foundations: Equity and Inclusion in Science and Engineering (*two sections*) Fall 2022
- Grand Challenges in Science I (*two sections*) Spring 2022
- Grand Challenges in Science III (*two sections*)
- First Year Foundations: Climate Change in Science and Engineering Fall 2021
- Grand Challenges in Science II (*two sections*)

Faculty of Science, University of Zagreb (Teaching Assistant)

- Complex Analysis Spring 2021
- Computer Programming I
- Fourier Series and Applications
- Measure and Integration (*two sections*)
- Mathematics for Biology Program Fall 2020
 - (Introduction to Calculus and Linear Algebra)
- Measure and Integration (*two sections*) Spring 2020
- Introduction to Mathematics Fall 2019
 - (Basics of Mathematical Logic, Calculus and Number Theory)
- Mathematics for Biology Program
 - (Introduction to Calculus and Linear Algebra)
- Fourier Series and Applications Spring 2019
- Measure and Integration
- Introduction to Mathematics Fall 2018
 - (Basics of Mathematical Logic, Calculus and Number Theory)
- Mathematics for Biology Program
 - (Introduction to Calculus and Linear Algebra)
- Measure and Integration (*two sections*) Spring 2018
- Discrete Mathematics (*Combinatorics*) Fall 2017
 - (Combinatorics, Introduction to Graph Theory)
- Introduction to Mathematics
 - (Basics of Mathematical Logic, Calculus and Number Theory)
- Mathematics for Biology Program
 - (Introduction to Calculus and Linear Algebra)
- Fourier Series and Applications Spring 2017
- Measure and Integration
- Differential and Integral Calculus II Fall 2016
- Discrete Mathematics
 - (Combinatorics, Introduction to Graph Theory)
- Mathematics for Biology Program
 - (Introduction to Calculus and Linear Algebra)
- Complex Analysis Spring 2016
- Fundamentals of Mathematic Analysis
- Measure and Integration
- Mathematics for Biology Program Fall 2015
 - (Introduction to Calculus and Linear Algebra)
- Probability

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Faculty of Electrical Engineering and Computing, University of Zagreb (Teaching Assistant)

- Probability and Statistics Spring 2017
- Mathematics III for Computer Science Program Fall 2016
 - (Multivariable Calculus, Fourier Series, Combinatorics, Graph Theory)
- Mathematics II Spring 2016
 - (Vector Geometry, Euclidean Geometry, Calculus, Infinite Series, Differential Equations)
- Mathematics III for Computer Science Program Fall 2015
 - (Multivariable Calculus, Fourier Series, Combinatorics, Graph Theory)

Department of Mathematics, Faculty of Science (Student Learning Assistant)

- Computer Programming II Spring 2014
- Measure and Integration
- Computer Programming I Fall 2013
- Mathematical Logic
- Computer Programming II Spring 2013
- Computing Lab I
- Computer Programming I Fall 2012
- Differential Calculus of Functions of Several Variables
- Computer Programming II Spring 2012
- Mathematical Analysis II
- Computer Programming I Fall 2011
- Mathematical Analysis I

Training and Education

- Entering Mentoring Workshop, Chapman University, California, USA 2022
- Facilitating Difficult Discussions Workshop, Chapman University, California, USA
- The School of Public Speaking, Heureka Education Center, Zagreb, Croatia 2019

Research Publications

- [3] P. Durcik, M. Stipčić, *Quantitative bounds for products of simplices in subsets of the unit cube*, preprint, arXiv:2206.10004.
- [2] V. Kovač, M. Stipčić, *Convergence of the ergodic-martingale paraproduct*. Stat. Probab. Lett. **164** (2020), Article 108826, 6 pp., arXiv:2003.03651
- [1] M. Stipčić, *$T(1)$ theorem for dyadic singular integral forms associated with hypergraphs*. J. Math. Anal. Appl. **481** (2020), no. 2, Article 123496, 27 pp., arXiv:1902.10462

Contribution at Scientific Events

Talks at conferences, seminars, workshops and summer schools

- Nodal domains and landscape functions, Kopp, Germany (*expository talk*) 2022
- UCLA participating analysis seminar, UCLA, Los Angeles, CA, USA
- 2022 Workshop on Operator Theory with an Eye on Linear Systems and Hypercomplex Analysis, Chapman University, CA, USA
- 7th Croatian Mathematical Congress, University of Split, Split, Croatia

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- Probability seminar for Ph.D. students, University of Zagreb, Zagreb, Croatia
- Analysis and Geometry seminar, Chapman University, CA, USA 2021
- Probability Seminar at University of Zagreb, Croatia 2020
 - (*a series of three seminars*)
- Zagreb Workshop on Operator Theory, University of Zagreb, Croatia
- 4th symposium of students of doctoral studies at the Faculty of Science, University of Zagreb, Croatia
- Mini-courses in Mathematical Analysis, Padua, Italy 2019
- Mini-courses in Mathematical Analysis, Padua, Italy 2018
- Probabilistic Aspects of Harmonic Analysis, Będlewo, Poland
- Functional Analysis Seminar at University of Zagreb, Croatia 2017
- Geometry Seminar at University of Zagreb, Croatia
- Probability Seminar at University of Zagreb, Croatia 2016

Poster showcase at scientific events

- Faculty Research and Creative Scholars Expo, Chapman University, Orange, CA, USA 2022
- A Young Researchers Symposium in Harmonic Analysis, Edinburgh, Scotland

Participation at Scientific Events

- Fourier Analysis @200, Edinburgh, Scotland 2022
- Probability, Analysis, and Applications, Zagreb, Croatia 2019
- Analysis and Applications, Wrocław, Poland 2017
- 1st Korean Croatian Summer Probability Camp, Zagreb, Croatia
- Young Women in Harmonic Analysis and PDE, Bonn, Germany 2016
- New Aspects of the Time Frequency Analysis involving Fréchet Frames, Novi Sad, Serbia
- 6th Croatian Mathematical Congress, Zagreb, Croatia

Engagement with the Community

- Organizer of Analysis and Geometry Seminar at Chapman University 2022 - present
- Judge at California Science and Engineering Fair 2022
- Coordinator and presenter at the University of Zagreb Fair for Department of Mathematics, Faculty of Science 2016 - 2020
- Volunteer instructor for the local *School Group* 2011-2018
 - Main goal of the group: providing free tutoring for elementary and high school students.
 - I worked with students (individually or in groups) on weekly basis as an instructor in Mathematics, Informatics, Logics and other subjects.
 - I served as one of the main volunteer coordinators by designing and facilitating tutoring sessions, organizing formative meetings and team building activities, recruiting new volunteers and providing a support to students and their parents.
- Member of the association *Young Talented Mathematicians "Marin Getaldić"* 2010-2012
 - Main goal of the association: popularizing Mathematics and supporting school students interested in extracurricular mathematical activities.
 - I was the main organizer of the high school competition *Tournament of Towns* in Zagreb
 - I was the team leader at *Summer Conference of the Tournament of Towns* in Russia, 2012, which was the final stage of the abovementioned competition.