Sarah Zampa, MSc.

Date of birth:	June 9th, 1996
Nationality:	French
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Objective

I am a graduate student in Mathematics conjointly at the Budapest University of Technology and Economics (BME) and Alfréd Rényi Institute of Mathematics under the supervision of Dr. Stipsicz András. I am interested in a wide range of subjects in low-dimensional topology: 3- and 4-manifolds, contact and symplectic structures, Heegaard Floer homology.

Education

PHD. IN MATHEMATICS

BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY
ALFRED RENYI INSTITUTE OF MATHEMATICS, HUNGARY
Sep. 2021 – Present

- Low dimensional topology, contact topology.

MSC. IN ADVANCED MATHEMATICS

UNIVERSITAT DE BARCELONA, SPAIN
Sep. 2020 – Present

- Deepening modules: Topological Data Analysis, Geometric Methods in Number Theory, Algebraic Geometry, Analysis.
- Sporadic modules (carried out at the Universitat Politècnica de Catalunya): Algebraic Geometry, Seminar in Algebra, Geometry and Discrete Mathematics.

MSC. IN ADVANCED MATHEMATICS AND MATHEMATICAL ENGINEERING

UNIVERSITAT POLITECNICA DE CATALUNYA, SPAIN
Sep. 2019 – Oct. 2020

- Deepening modules: Differentiable Manifolds and Symplectic Geometry, Discrete and Algorithmic Geometry, Graph Theory, Combinatorics.
- Sporadic module (carried out at the Universitat de Barcelona): Geometry and Topology of Manifolds.

BSC. IN MATHEMATICS

UNIVERSITY OF LILLE, FRANCE
Sep. 2015 – June 2019

- Deepening modules: Topology, Geometry, Integration, Numerical Linear Algebra.
- Optional programming subjects and first year completed within the optional English section.

Research & Work Experience

TUTORIAL GROUP'S TEACHER

BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, HUNGARY
Feb. 2022 – Present

- Teaching Calculus and Linear Algebra to first year engineering students.
- Designing weekly exercises, homeworks, and exams.

MASTER THESIS
UNIVERSITAT POLITECNICA DE CATALNUYA, SPAIN
Nov. 2019 – Sep. 2020

- Title: *Results on a Spin^c-genus.*
- Supervisors: Prof. Dr. María Immaculada Gálvez Carrillo & Prof. Dr. Pere Pascual Gainza.
- Studying manifolds with a Spin^c-structure in order to give results on a Spin^c-genus (Hirzebruch) derived from the Witten genus, and implementation of codes to compute this genus on usual manifolds.
- Grade: 9/10.

PRIVATE TUITIONS' TEACHER
LILLE, FRANCE
Sep. 2018 – July 2019

- Taught students with different levels in Mathematics, from high school to first undergraduate years.

Talks

TOPOLOGICAL WORKSHOPS OF THE SPANISH TOPOLOGY NETWORK (RET)
VIRTUAL
6-7 Nov. 2020

- Speaker on the subject "Hirzebruch genera: Results on a Spin^c Witten genus".
- URL of the event: `https://sites.google.com/view/ijtopv/programa`

Seminars

SEMINAR IN ALGEBRA, GEOMETRY AND DISCRETE MATHEMATICS
UNIVERSITAT POLITECNICA DE CATALUNYA, SPAIN
March 2021 – May 7, 2021

- Participant.

SEMINAR ON BASIC MATHEMATICS FOR ALGEBRAIC CODING
UNIVERSITAT POLITECNICA DE CATALUNYA, SPAIN
June 2020 – July 2020

- Attendee.

SEMINAR ON GEOMETRIC USES OF PERSISTENT HOMOLOGY
UNIVERSITAT DE BARCELONA, SPAIN
Oct. 2019 – Feb. 2020

- Attendee.

Skills

LANGUAGE SKILLS

- French: Native language.
- English: Bilingual Proficiency (C2)
- Spanish: Conversational.
- Hungarian: Beginner.

PROGRAMMING SKILLS

- Python
- Sage
- R
- LaTeX