# İBRAHİM EMİR ÇİÇEKLİ

✓ibrahimemircicekli@gmail.com

**♀** Department of Mathematics, Galatasaray University, Istanbul, Turkey

#### **EDUCATION**

#### Galatasaray University, Turkey

2018 - 2023

Department Of Mathematics, GPA: 3.85, graduated with highest GPA of the department in 2023

- -Graduation Project: Hyperbolic Geometry and the Modular Group
- -Advisor: Prof. A. Muhammed Uludag, E-mail:muludag@gsu.edu.tr

#### RESEARCH & TEACHING EXPERIENCE

# Research Group on Fundamental Modular Groupoid

October 2021, July 2023

Supervisor: Assoc. Prof. Ayberk ZEYTİN, Galatasaray University

- Our research focusses on various aspects of fundamental modular groupoid, a groupoid containing all mapping class groupoids of oriented surfaces of finite type together with the universal mapping class groupoid.

# Research Group on Symmetric Chain Decomposition of Poset lattices.

January 2022 - July 2022

Supervisor: Prof. Meral TOSUN

- Our main goal was to find symmetric chain decompositions of order lattices of the form L(m,n).
- We read papers on previous combinatorial and geometric approaches to this problem.
- We tried build a bridge between combinatorial and geometric and algebraic tools used to solve problems of this kind.

# Problem Sessions in Galatasaray University as Undergrad TA

Organized problem sessions of undergraduate courses in:

- MAT261 Linear Algebra
- MAT331 Probability
- MAT417 Differential Geometry

## **Private Tutoring**

- Did private tutoring for undergraduate courses such as calculus, ODEs, PDEs and linear algebra.

## AWARDS AND SCHOLARSHIPS

#### Grant, Tubitak

- Tubitak 2247-C: Grant for our project called "Fundamental Modular Groupoid".

#### WORKSHOPS

# Undergraduate, Graduate Mathematics Program, Nesin Mathematics Village

2018-2021

**Participant** 

- -A mathematics programme in which students are taught various subjects by volunteering professors from all around the world in a secluded campus in İzmir, Şirince. It was founded by Prof. Ali Nesin who was awarded the Leelavati prize in 2018 for outstanding contribution to mathematics education.
- Took courses in: Category Theory, Sheaves and Algebraic Geometry.

# Mirror symmetry for Looijenga interiors and beyond- Summer School

July 18- July 22, 2022

**Participant** 

Participated only in the summer school part, the link can be found here.

#### **Directed Reading Program Turkey**

July-August 28 2022

Supervisor: Eda Kırımlı, University of Bristol

- I studied elliptic curves, complex multiplication and Schoof's algorithm. I gave a talk on August 28, 2022. You can find my talk here and my study report here.

## **Lectures on Hyperbolic Geometry**

November 7- November 11, December 5- December 10, 2022

as Organizer and participant

Lecturers : Daniel Massart-University of Montpellier, Gerard Besson- University Grenobles Alpes, Gilles Courtois-Sorbonne Université

- A series of lectures done at Galatasaray University by guest-professors.
- -Starting from the problem of "understanding the topology and geometry of a space by its curvature" we went onto define  $\delta$ -hyperbolic spaces, quasi-isometries and hyperbolic groups. The main problem of the second part was to understand a group, by turning it into a geometric space using Cayley graphs.

# Mirror Symmetry and Differential Equations-Workshop

July 10- July 14 2023

Organizer

- Participants and talk subjects can be found here.

## **SKILLS**

**Languages:** Turkish- Native, English- Fluent, French-Fluent

**Programming:** Python

Computer Algebra Systems: Singular, Sage, MATLAB, Julia

#### **EXTRACURRICULAR**

# **Galatasaray University Mathematics Club**

Board Member, Editor

- I volunteered as a board member responsible for organizing student seminars. Gave talks as well. I volunteered as an editor for the online published mathematics magazine.

#### **Tohum Otizm Vakfi**

Volunteer

- I volunteered at "Tohum Otizm Vakfi", a Turkish charity foundation which aims to provide education and medical help for people, especially children, on the autism spectrum.