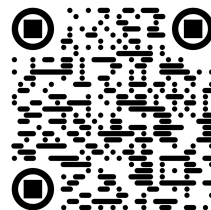


# Maciej Zięba

Home: +48 795419427  
email: maciejzieba98@gmail.com  
in: linkedin.com/in/maciej-zieba



**Citizenship:** Poland  
**Date of Birth:** October 10, 1998  
**Place of residence:** Niepołomice  $\longleftrightarrow$  Cracow, Poland

## **Experiance:**

- Mathematician  
Synthetify & Invariant · Part-time  
Sep 2021 - Present

In both projects, I use my mathematical abilities to create financial models in the Cryptocurrency sector. I work on topics such as AMMs, Bonds, Farms, Active Liquidity Management, and so on.

- Mathematics Tutor  
Self-employed  
Dec 2016 - Present

I teach math to students of various levels of comprehension. I tutored  $\gg$  100 individuals over the tutoring time.

- Tutor - algebra and calculus  
Pedagogical University of Cracow · Freelance  
Oct 2021 - Jun 2022

I taught 90 hours of basic calculus and linear algebra to first-year students. Later on, I worked as a linear algebra instructor.

- Mathematics Teacher  
Galileusz Bochnia · Freelance  
Jan 2020 - Jun 2021

I prepared students for math examinations at the elementary, high school, and university levels, as well as teaching current school curriculum.

## **Education:**

- Doctor of Philosophy, Mathematics at Pedagogical University of Cracow, 2021 - 2026.

I produced various research articles throughout my bachelor's degree, which allowed me to go straight to doctoral school.

- Bachelor of Science, Mathematics at Pedagogical University of Cracow, 2018 - 2021.  
Individual Curriculum of Studies (Commutative Algebra and Algebraic Geometry)

## **IT & programming:**

Rust, Python,  $\text{\LaTeX}$ , MS Office, Markdown, Maple

## **Research interests:**

- Cryptocurrency, Application of mathematics in decentralized finances.
- Algebraic Curves, Commutative Algebra (symbolic powers of ideals, containment problems), Combinatorics (curve arrangements, hyperplane arrangements, graphs).

### **Publications List:**

#### **Published:**

1. Generic projections of the  $H_4$  configuration of points  
Advances in Applied Mathematics  
Sep 15, 2022  
**Show publication**
2. On Yoshinaga's arrangement of lines and the containment problem  
BULLETIN MATHÉMATIQUE de la Société des Sciences Mathématiques de Roumanie  
May 12, 2021  
**Show publication**
3. About specific hyperbolas associated with a triangle  
Prace Koła Matematyków Uniwersytetu Pedagogicznego w Krakowie  
Jan 18, 2020  
**Show publication**
4. A family of hyperbolas associated to a triangle  
Analytic and Algebraic Geometry 3, Łódź University Press  
Nov 1, 2019  
**Show publication**

#### **Selected talks:**

- *On  $H_4$  configuration of points in  $\mathbb{P}^3$ .*  
Effective Methods in Algebraic Geometry, Cracow (Poland), 20-24 June 2022
- *Cayley-Bacharach Theorem.*  
Pidstryhach Readings 2020, Lviv (Ukraine), 26 - 28 May 2020.
- *On Yoshinaga's arrangement of lines and the containment problem.*  
Geometry, Algebra and Combinatorics of Moduli Spaces and Configurations IV, Toblach (Italy), 23 - 29 February 2020.
- *Conics associated with a triangle.*  
Pidstryhach Readings 2019, Lviv (Ukraine), 27 - 29 May 2019.

#### **Projects:**

- European Networking of STEAME School Students for Exchange and Co-creation.  
Creation and management of STEAME students platform.

#### **Awards, Scholarship, Honors:**

- Rector Scholarship for the best students, during all academic years.

#### **Grants:**

- Najlepsi z Najlepszych 4.0 (The best from the best (students) 4.0), scientific grant for the best undergraduate students, Ministry of Science and Higher Education, received in October 2019 (duration of the support – one academic year).

#### **Hobbies:** inline skating · travels · problem solving

*I also consent to processing of my personal data for the purposes of any future recruitment processes.*