Mikuláš Zindulka

Curriculum Vitae

Contact information

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Personal

Date of birth	May 26, 1996
Nationality	Czech Republic

Education

Charles University, Prague, Czech Republic
Faculty of Mathematics and Physics

2021–present	Ph.D., Algebra, number theory, and mathematical logic Supervisor: V. Kala Dissertation: *The Arithmetic of Number Fields: Decompositions and Norms*
2018–2021	Master of Mathematics, Mathematical analysis Supervisor: O. Kalenda Master thesis: *Basic sequences in Banach spaces*
2018–2021	Bachelor of Mathematics, General mathematics Supervisor: M. Cúth Bachelor thesis: *Finitely additive measures and their decompositions*

Research interests

Arithmetics of number fields

Theory of partitions

Questions related to Artin's conjecture for primitive roots

Lattice models in combinatorics

Grants

2021–2025	**Czech Science Foundation GAČR** Team member of *UFOCLAN: Universal quadratic forms and class numbers* Principal investigator: V. Kala
2020–2022	**Primus Research Programme** Team member of the project *Universal quadratic forms: geometry and analysis* Principal investigator: V. Kala
2020–2022	**The Charles University Grant Agency** Investigator of the project *Number systems in lattices and number field orders* Principal investigator: J. Krásenský
2018–2019	**Student Faculty Grant** Principal investigator of the project *Probabilistic model for Artin's conjecture*

Publications

Artin twin primes (with M. Tinková and E. Waxman), Journal of Number Theory, April 2023

Partitions into powers of an algebraic number (with V. Kala), arXiv:2305.16688, May 2023

The Six-Vertex Model with a Non-Standard Boundary Condition (with M. Doležálek, M. Raška, E. Sgallová, and E. N. Stucky), arXiv:2310.05281, October 2023

Partitions in real quadratic fields (with D. Stern), preprint, arXiv:2310.09980, October 2023

Conferences and talks

June 2023	Summer school Quadratic forms and applications in algebraic geometry RWTH Aachen University, Germany
May 2023	Numeration 2023 University of Liège, Belgium Talk: *Partitions into powers of an algebraic number*
September 2022	International Workshop for Young Mathematicians Jagiellonian University, Kraków, Poland Talk: *Number of elements of small norm in the simplest cubic fields*
September 2022	ALGAR summer school University of Antwerp, Belgium
August 2022	ELAZ University of Poznań, Poland Talk: *Number of elements of small norm in the simplest cubic fields*
July 2022	Number Theory Conference University of Debrecen, Hungary Talk: *Number of elements of small norm in the simplest cubic fields*
August 2021	ALGAR summer school University of Antwerp, Belgium
April 2021	Front Range Number Theory Day (online) CSU and UC Boulder, USA
February 2020	Combinatorial and Algebraic Structures Seminar Czech Technical University, Prague Talk: *Hardy-Littlewood conjecture for primes having a prescribed primitive root*
November 2019	Number theory seminar Charles University, Prague Talk: *Hardy-Littlewood conjecture for primes having a prescribed primitive root*
July 2019	2nd French-German Summer School TU Dresden, Germany
July 2014	The Summer Symposium in Real Analysis Czech Technical University, Prague

Teaching experience

Winter 2023/2024	Linear algebra 1 Practicals at MFF UK
Summer 2022/2023	Number theory proseminar Elective course at MFF UK
Winter 2022/2023	Linear algebra 1 Practicals at MFF UK
Summer 2021/2022	Number theory proseminar Elective course at MFF UK
Winter 2021/2022	Linear algebra 1 Practicals at MFF UK
Summer 2020/2021	Mathematics IV Practicals at FSV UK The *Golden Course* award

Winter 2020/2021	Mathematics III Practicals at FSV UK The *Golden Course* award

Bachelor thesis consultant

D. Stern, *Partitions of totally positive elements in real quadratic fields*, 2023.

F. Couf, *Fourier transform on polytopes and tiling with rectangles*, 2023.

Internship abroad

Summer semester 2019/2020	Heidelberg University, Germany Erasmus+ mobility

Languages

English (fluent), **Czech** (native), **German** (beginner)