FINITE DIFFERENCE SETS

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Ciele

- The main topic of this project is a part of the combinatorial number theory. We will study generalized difference sets on subsets of positive integers whose differences include each positive integer with a prescribed number of repetitions.

- The twofold aim of the project is to approach the classification of admissible repetition sequences of finite generalized difference sets and the design of algorithms that produce generalized difference sets with additional properties for specified admissible sequences. The part of the project is to program and analyse developed algorithms.

Odborné práce

- – *Tatiana B. Jajcayová, Robert Jajcay: Notes on subtractive properties of natural numbers, 2008*

- – *Tatiana B. Jajcayová: Generalized Difference Sets*

- – *Swara Kopparty: Results on Frequency Sequences*

Knihy a monografie

- – *J. H. van Lint, R. M. Wilson: A Course in Combinatorics, 2nd edition Cambridge University Press 2001 ISBN-13 978-0-511-67289-7*

- – *Emily H. Moore , Harriet S. Pollatsek: Difference Sets: Connecting Algebra, Combinatorics, and Geometry American Mathematical Society, 2013 ISBN-13: 978-0821891766*

Bakalárske a magisterské práce

- *Marek Štefaňák: Frequency Sequences of Finite Difference Sets*
  - Bachelor's Thesis, 2014

- *Ivana Kellyérová: Generalized difference sets*
  - Bachelor's Thesis, 2014

- *Bc. Marián Opial: Generalized difference sets – An Algorithmic Approach*
  - Master's Thesis, 2017