

# Bachelor and Diploma Theses 2021/2022

## BACHELOR

- **Approximations of singular functions in the finite element method**  
prof. RNDr. Feistauer Miloslav, DrSc., dr. h. c.
- **Basic Properties of Multigrid Methods**  
RNDr. Papež Jan, Ph.D.
- **Complex networks and iterative methods**  
Pozza Stefano, Dr., Ph.D.
- **Domain decomposition methods for the solution of differential equations**  
prof. Dolejší Vít, Ph.D., DSc.
- **Eikonal equation and its applications**  
doc. RNDr. Felcman Jiří, CSc.
- **Numerical computation of derivatives**  
doc. RNDr. Tichý Petr, Ph.D.
- **Parallel incomplete factorizations**  
prof. Ing. Tůma Miroslav, CSc.
- **Planar discrete dynamical systems**  
prof. RNDr. Janovský Vladimír, DrSc.

## DIPLOMA

- **Efficient solution of sequences of linear systems**  
doc. Dipl.-Math. Duintjer Tebbens Erik Jurjen, Ph.D.
- **Exploration of Inexactness in the Behavior of Multilevel Methods**  
Erin Carson, Dr., Ph.D.
- **Fluid-structure-acoustics interaction**  
prof. RNDr. Feistauer Miloslav, DrSc., dr. h. c.
- **Goal-oriented error estimates for nonlinear problems**  
prof. Dolejší Vít, Ph.D., DSc.
- **Numerical behavior of the BiCGStab method**  
doc. RNDr. Tichý Petr, Ph.D.
- **Problem partitioning for high-performance computations of systems of equations**  
prof. Ing. Tůma Miroslav, CSc.
- **Properties and Solution of Systems of Equations Stemming from Local Problems in Method of Flux Reconstructions**  
RNDr. Papež Jan, Ph.D.

The complete list can be found at the  
[Student Information System](#)