

**Doctoral School in Mathematics and Computer Science**

**Doctoral supervisors**

**Mathematics Field of study**

Agratini Octavian

*Operator Theory, Linear Approximation Processes, Quantum Calculus*

Andrica Dorin

*Geometry, Critical Point Theory, Lie Groups, Geometric Mechanics*

Baricz Árpád

*Orthogonal polynomials and special functions*

Breaz Simion-Sorin

*Modules, Abelian Groups, Rings, Homological Algebra*

Breckner Brigitte-Erika

*Topological Semigroups, Functional Analysis, Critical Point Theory, Analysis on Fractals*

Buică Florina-Adriana

*Qualitative Theory of ODEs, Bifurcation Theory, Dynamical Systems*

Bulboacă Teodor

*Complex Analysis, Geometric Function Theory*

Cătinaş Teodora-Maria

*Approximation Theory, Numerical Methods*

Crivei Septimiu

*Module theory, Category theory*

Duca Dorel

*Mathematical Analysis, Optimization Theory*

Groşan Teodor-Silviu

*Theoretical Mechanics, Fluid Mechanics, Porous Media, Heat Transfer*

Kassay Gábor

*Nonlinear Analysis, Variational Analysis, Optimization*

Kohr Gabriela

*Complex Analysis, Geometric Function Theory of One and Several Complex Variables*

Kohr Mirela

*Fluid Mechanics, Potential Theory, Complex Analysis, Partial Differential Equations*

Kristály Alexandru

*Calculus of Variations, Critical Point Theory, Elliptic Problems, Riemann-Finsler Geometry, Geometric Analysis, Optimization on Manifolds*

Lisei Hannelore

*Stochastic Analysis, Variational Calculus*

Mărcuş Andrei-Dorin

*Representation Theory of Groups and Algebras*

Mureşan Marian

*Nonsmooth Analysis, Optimal Control, Image Processing*

Petruşel Adrian

*Nonlinear Analysis, Differential Equations, Fixed Point Theory*

Popovici Nicolae

*Vector Optimization, Operations Research, Convex Analysis, Generalized Convexity, Set-valued Analysis*

Precup Radu

*Nonlinear Functional Analysis, Ordinary and Partial Differential Equations*

Sălăgean Grigore

*Complex Analysis, Geometric Function Theory*

Varga György-Csaba

*Critical Point Theory, Hemivariational Inequalities, Riemann-Finsler Geometry*

## **Computer Science Field of study**

Andreica Anca-Mirela

*Applied Computational Intelligence*

Boian Florian - Mircea

*Operating Systems; Concurrent and Distributed Systems; Web Services*

Czibula Gabriela

*Computational Intelligence, Machine Learning, Distributed Artificial Intelligence*

Czibula István-Gergely

*Search Based Software Engineering*

Dioşan Laura-Silvia

*Nature-inspired Computation, Machine Learning, Applied Computational Intelligence*

Pârv Bazil

*Software Engineering, Modeling and Simulation, Scientific Computation*

Pop Horia F.

*Computational Intelligence, Intelligent Data Analysis*

## **Affiliated academic staff**

### **Mathematics**

Breaz Valer-Daniel

*Complex Analysis, Geometric Function Theory*

Gal Gheorghe-Sorin

*Global Smoothness and Shape Preserving Interpolation, Nonlinear Approximation, Complex and Quaternionic Approximation, Fuzzy Mathematics*

Gonska Heiner

*Approximation Theory, Computer-Aided Design, Theory of Algorithms*

## **Description**

The Faculty of Mathematics and Computer Science from Babeş-Bolyai University offers 3rd cycle academic studies in the form of PhD programmes in Mathematics and Computer Science, organized by the Doctoral School of Mathematics and Computer Science. The degrees offered are PhD in Mathematics and PhD in Computer Science, respectively. Target groups are graduates of master programmes in Mathematics, Computer Science, Computer Engineering, Economics, and Natural Sciences. The main purpose of the programmes is to develop advanced research skills and to produce valuable and internationally visible scientific results in the fields of Mathematics and Computer Science. Our programmes are promoting high-quality fundamental and applied research in Mathematics and Computer Science, as well as interdisciplinary research, by involving the PhD students in the most important and recent research projects of the faculty, including international cooperation with academic and industrial partners.

The major research topics in Mathematics are: Algebra, Analysis, Geometry, Complex Analysis, Approximation, numerical and statistical calculus, Nonlinear operators and differential equations and Mechanics. In Computer Science, the research topics include: Applied computational intelligence, Machine Learning and applications, Search Based Software Engineering, Modeling and Simulation and Intelligent Data Analysis.

The mission of the Doctoral school in Mathematics and Computer Science is to allow PhD students to pursue a high-quality research in Mathematics and Computer Science, as well as to continuously increase the scientific quality of mentoring doctoral students and the quality of their PhD theses. The Doctoral School supports joint

doctoral degrees. The holder of a PhD diploma in Mathematics and Computer Science may activate in any academic or research institution, as well as in industrial or administrative fields.

## Contact

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