**Institute for Advanced Studies in Basic Sciences**
in Basic Sciences
Gava Zang, Zanjan, Iran

# The Department of Mathematics

# Departmental Overview

The Department of Mathematics at the Institute for Advanced Studies in Basic Sciences (IASBS) Zanjan was established in 1994 when it started to offer MSc degree courses in Pure and Applied Mathematics. The PhD programme began in 2004. The Mathematics Department carries out education and research activities in pure, applied, and financial mathematics.

The main aim of the postgraduate courses is to train experts in the mathematical sciences who will be able to carry out research at the international level. The faculty have a research-based outlook working on state-of-the-art topics in mathematics through national and international collaborations. The Department's research groups consist of *Analysis, Algebra, Geometry, Graph Theory and Combinatorics, Numerical Analysis, Financial Mathematics, Optimization, and Scientific Computing*.

Since its inception, the Mathematics Department has organised many national and international conferences, workshops and schools attracting a number of renowned mathematicians from around the world. In 2014, the European Mathematical Society (EMS) selected the Department of Mathematics at the IASBS as one of the Emerging Regional Centres of Excellence.

# Graduate Studies

**The Department of Mathematics offers the following postgraduate courses.**

✓ *Master's programmes in Pure, Applied, and Financial Mathematics*

These are two-year MSc programmes consisting of 10-12 courses in the first year and a research thesis project in the second year.

✓ *PhD degree courses in Analysis, Algebra, Geometry, Graph Theory and Combinatorics, Numerical Analysis, Financial Mathematics, and Optimisation*

These are four-year doctoral programmes consisting of at least 6 courses and a comprehensive examination in the first two years, and a research thesis project in the remaining two years whose outcome is expected to be publishable in reputable international journals.

✓ *Seamless Direct MSc-PhD programmes in Pure and Applied Mathematics for undergraduate degree holders*

These are five-year programmes. The first 2 years are spent on passing 10-13 courses and a comprehensive examination. The last 3 years are spent on carrying out research with outcomes publishable in reputable international journals.

# Research Facilities

✓ The Mathematics Department has a computational laboratory, which is used both for education and research.

✓ Further analytical facilities housed in other departments of the Institute are also available to the faculty and the students.

✓ The usual general facilities to support student activities are available and include personal office space, computer lab, web facilities, and meeting rooms.

✓ Financial support is made available to attend domestic and international workshops, schools and conferences.

✓ Teaching and research assistantships are also provided.

# Faculty Members

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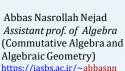https://iasbs.ac.ir/~khastan

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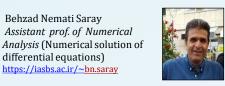
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