

1st Research School on Commutative Algebra and Algebraic Geometry  
(RSCAAG)  
Algebra, Combinatorics and Geometry of Monomials

The Institute for Advanced Studies in Basic Sciences (IASBS) and the Institute for Research in Fundamental Sciences (IPM) are organizing a research school on "*Algebra, Combinatorics and Geometry of Monomials*" from [5th to 17th August 2017](#) in IASBS, Zanjan.

The aim of the school is to introduce research topics in the main streams of Algebraic Geometry and Commutative Algebra to young researchers and PhD students, and encourage them to collaborate in teams led by well-known mathematicians. To reach this aim, an educational-research school will be organized for a period of 2 weeks in IASBS. After some intensive courses on special topics, participants will be divided into groups and start work and research on some proposed related problems. These collaborations will be continued after the schools.

The topic of monomial ideals and algebras, as a subject of Commutative Algebra, Homological Algebra, Combinatorics and Geometry will be investigated from several points of view. The common point will be reaching to an understanding of the behavior of monomials when the corresponding ideal or algebra has special properties.

## Lectures:

[Eric Babson](#) (UC Davis, USA)  
Random Simplicial Complexes

[Jürgen Herzog](#) (Universität Duisburg-Essen, Germany)  
Homology of Monomial Ideals and Algebras

[Volkmar Welker](#) (Philipps-Universität Marburg, Germany)  
Geometry and Algebra of Subdivisions

[Rashid Zaare-Nahandi](#) (IASBS, Iran)  
Monomial Ideals with Linear Resolutions

**More information will be announced later.**