

Modern Perspectives on Birational Geometry Mini-courses and Conference

Venue R515, Cosmology Bldg., National Taiwan University + Online

Mini-courses July 29 - July 30, 2023

Conference July 31 - August 4, 2023

Aim & Scope

Birational geometry has been central in shaping the developments of algebraic geometry since the 19th century. Many fundamental problems and breakthroughs revolve around the birational types of algebraic varieties as well as birational transformations, such as the minimal model program, resolution of singularities, factorizations of birational maps, K-equivalences, amongst many others.

Progress made in birational geometry builds primarily upon the many beautiful and explicit examples and constructions, such as explicit studies of del Pezzo surfaces and Fano threefolds, examples of simple birational transformations (e.g. simples flops or K-equivalences), rationality constructions of certain cubic fourfolds, to name but a few. They make birational geometry an inexhaustive area of research, and nourish new perspectives and techniques that keep emerging in the field. The main aim of this conference is to bring together the experts in birational geometry working in various domains, but sharing interests in the explicit aspect of it.

Invited Speakers

Mini-courses Lecturers:

Dan Abramovich
Brown University

Shigeru Mukai
RIMS, Kyoto university

Yuri Prokhorov
Steklov Institute

Conference Speakers:

Hamid Abban
University of Nottingham

Dan Abramovich
Brown University

Caucher Birkar*
Tsinghua University

Liana Heuberger
University of Bath

Dmitry Kaledin
HSE University & Steklov Institute

Konstantin Loginov
HSE University & Steklov Institute

Steven Lu
Université du Québec à Montréal

Gebhard Martin
University of Bonn

Mirko Mauri
IST Vienna

Shigeru Mukai
RIMS, Kyoto university

Keiji Oguiso
University of Tokyo

Jihun Park
Pohang University of
Science and Technology

Yuri Prokhorov
Steklov Institute

Marco Rampazzo
University of Bologna

Francesco Russo
University of Catania

Julia Schneider
EPFL

Constantin Shramov
HSE University & Steklov Institute

Jenya Tevelev
UMass Amherst

Jaroslav Włodarczyk
Purdue University

* online

Organizing Committee

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National Taiwan University & NCTS

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University of Sheffield

