



## **Non-commutative crepant resolutions, Ulrich modules and generalizations of the McKay correspondence**

June 13<sup>th</sup> - 17<sup>th</sup>, 2016, RIMS, Kyoto University

Organizer : Yukari Ito (Nagoya University)

Program Coordinators: Osamu Iyama (Nagoya University), Ryo Takahashi (Nagoya University),  
Akira Ishii (Hiroshima University), Ken-ichi Yoshida (Nihon University),  
Takehiko Yasuda (Osaka University)

Program: More information can be seen at <http://www.nagoya-u.ac.jp/~y-ito/rims2016.html>

13<sup>th</sup>(Mon) 10:00-10:10 Yukari Ito (Nagoya University)

Introduction

10:10-11:00 Akira Ishii (Hiroshima University)

Introduction to the McKay correspondence and Artin-Verdier theory

11:15-12:15 Yujiro Kawamata (University of Tokyo)

Derived McKay correspondence for finite abelian groups and derived toric MMP

13:45-14:45 Kazushi Ueda (University of Tokyo)

Dimer models

15:00-16:00 Alastair Craw (Bath University)

The McKay correspondence by variation of GIT quotient

16:15-17:15 Hokuto Uehara (Tokyo Metropolitan University)

A trichotomy for the autoequivalence groups of derived categories on surfaces

14<sup>th</sup>(Tue) 9:30-10:15 Ryo Takahashi (Nagoya University)

Introduction to Cohen-Macaulay representation theory

10:30-11:30 Michel Van den Bergh (Hasselt University)

Noncommutative crepant resolutions and modules of covariants I

13:00-14:00 Michel Van den Bergh (Hasselt University)

Noncommutative crepant resolutions and modules of covariants II

14:15-15:15 Hai Long Dao (Kansas University)

On rigid MCM modules

15:25-16:25 Osamu Iyama (Nagoya University)

Higher preprojective algebras and Cohen-Macaulay representations

(18:00-19:00 Visiting Gion corner)\*

Meet at the entrance of RIMS at 16:45 and go to Gion corner by bus.

15<sup>th</sup>(Wed) 9:30-10:30 Izuru Mori (Shizuoka University)

McKay correspondence and Beilinson correspondence for AS-regular algebras

10:45-11:45 Shinnosuke Okawa (Osaka University)

On noncommutative Hirzebruch surfaces

(14:40-15:40 Colloquium talk by Robin Hartshorne.)

16<sup>th</sup>(Thu) 9:30-11:00 Ken-ichi Yoshida (Nihon University)

Introduction to Ulrich modules and ideals

11:15-12:00 Yusuke Nakajima (Nagoya University)

Ulrich modules over quotient surface singularities

13:30-14:30 Robin Hartshorne (UC Berkeley)

Ulrich Bundles on Cubic Hypersurfaces

14:45-15:45 Iku Nakamura (Hokkaido University)

Global McKay correspondence for quotient surface singularities

16:00-17:00 Poster session at 110

Alvaro Nolla de Celis (Rey Juan Carlos): Group actions and dimer models,

Seung-Jo Jung (KIAS): On the Craw--Ishii conjecture,

Joseph Karmazyn (Bath): Noncommutative Knörrer periodicity for cyclic quotient surface singularities,

Antoine Caradot (Lyon): Inhomogeneous Kleinian singularities and quivers,

Tomoaki Shirato (Nagoya): On Frobenius split Abelian fiber spaces over curves,

Kenta Sato (Tokyo): Stability of test ideals of divisors with small multiplicity,

Chihiro Enomoto (Nihon): Cleanness of Cohen-Macaulay monomial ideal generated by five elements,

Wahei Hara (Waseda): Rouquier Dimension and Orlov Spectrum of Singular Varieties,

Ben Wormleighton (Berkeley): G-Hilb for trihedral groups,

Genki Ouchi (Tokyo): Automorphisms of positive entropy on some hyperKähler manifolds via derived automorphisms of K3 surfaces.

18:00-20:00 Conference dinner at Kyoto Univ. coop (Hokubu) restaurant

17<sup>th</sup>(Fri) 9:30-11:00 Stefan Schroerer (Heinrich Heine University of Dusseldorf)

Wild quotient singularities

12:30-13:30 Shuji Saito (Tokyo Institute of Technology)

McKay principle and Hasse principle

13:45-14:45 Takehiko Yasuda (Osaka University)

Computational aspects of the wild McKay correspondence