

# CMO-BIRS 2015

## Preprojective Algebras Interacting with Singularities, Cohen-Macaulay Modules and Weighted Projective Spaces

### MONDAY, October 5, 2015

- 8:45-9:00 Introduction and Welcome
- 9:00- 9:50 **Graham Leuschke** (Syracuse): Cohen-Macaulay modules I
- 10:00-10:50 **Hagen Meltzer** (Szczecin): Weighted projective lines
- 11:00-11:30 *Coffee Break*
- 11:30-12:20 **Atsushi Takahashi** (Osaka): Introduction to the mirror symmetry between weighted projective lines and cusp singularities
- 12:30-13:20 **Wolfgang Ebeling** (Hannover): Strange duality between hypersurface and complete intersection dualities
- 13:30-15:00 *Lunch*
- 15:30-16:20 **Steffen Oppermann** (Trondheim): Geigle-Lenzing spaces and d-canonical algebras
- 16:30-17:00 *Coffee Break*
- 17:00-17:50 **Osamu Iyama** (Nagoya): Tilting theory for Geigle-Lenzing complete intersections
- 18:00-18:50 **Lutz Hille** (Münster): Weighted projective spaces, crepant resolutions and tilting
- 19:00-21:00 *Dinner*

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**TUESDAY, October 6, 2015**

- 9:00- 9:50 **Graham Leuschke** (Syracuse): Cohen-Macaulay modules II
- 10:00-10:50 **Rosa M. Miró-Roig** (Barcelona): The representation type of a projective variety
- 11:00-11:30 *Coffee Break*
- 11:30-12:20 **Martin Herschend** (Uppsala): Higher preprojective algebras
- 12:30-13:20 **Izuru Mori** (Shizuoka University):  $n$ -regular modules over  $n$ -representation infinite algebra
- 13:30-15:00 *Lunch*
- 15:30-16:20 **Daniel Chan** (New South Wales): Algebraic stacks in the representation theory of finite dimensional algebras
- 16:30-17:00 *Coffee Break*
- 17:00-17:50 **Kazushi Ueda**: (Osaka): Moduli of relations of quivers
- 18:00-18:50 **Eleonore Faber** (Michigan): A McKay correspondence for reflection groups
- 19:00-21:00 *Dinner*

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**WEDNESDAY, October 7, 2015**

08:30-09:20 **Matthew Ballard** (University of South Carolina): *Where do derived equivalences come from?*

09:30-10:20 **Colin Ingalls** (University of New Brunswick): *Decorated Minimal Model Program*

10:30-11:00 *Coffee Break*

11:00-11:50 **Christof Geiss**: (Universidad Nacional Autónoma de México):  
*A version of preprojective algebras for symmetrizable Cartan matrices over an arbitrary field*

12:00-12:50 **Louis-Philippe Thibault** (University of Toronto):  
*Preprojective structure on skew-group algebras associated to finite subgroups of  $SL(n, k)$*

13:00-14:00 *Lunch*

14:00-18:00 **Excursion to Montealban**

**Departure 14:00**

Busses arrive to Zocalo Oaxaca at **18:00**.

People may stay there or continue with the bus to their hotel.

*A reservation for 20 people has been made in “Los Danzantes”, Alcalá Street, 19:00.*

19:00-21:00 *Dinner*

**THURSDAY, October 8, 2015**

- 9:00- 9:50 **Hiroyuki Minamoto** (Osaka Prefecture University):  
*Tilting bundles on Fano algebras*
- 10:00-10:50 **David Paukstello** (University of Manchester)  
*Averaging of  $t$ -structures and extension closure of aisles*
- 11:00-11:30 *Coffee Break*
- 11:30-12:20 **Erik Darpö** (Mälardalen University):  
 *$n$ -cluster-tilting modules of self-injective algebras*
- 12:30-13:20 **Gustavo Jasso** (Universität Bonn):  
*Higher Nakayama Algebras*
- 13:30-15:00 *Lunch*
- 15:30-15:55 **Ryo Kanda** (Nagoya University): *Atom spectra of Geigle-Lenzing spaces and classification of Serre subcategories*
- 16:00-16:25 **Jyun-Ao Lin** (Academica Sinica-Taipei): *Spherical Hall algebra of a weighted projective curve*
- 16:30-17:00 *Coffee Break*
- 17:00-17:50 **David Favero** (University of Alberta)  
*Comparing Singularity Categories coming from Invertible Polynomials*
- 18:00-18:50 **Henning Krause** (Universität Bielefeld)  
*Highest weight categories, recollements, and exceptional sequences*
- 19:00-21:00 *Dinner*

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## **Preprojective Algebras Interacting with Singularities, Cohen-Macaulay Modules and Weighted Projective Spaces**

**FRIDAY, October 9, 2015**

- 09:00-09:50    **Hailong Dao** (University of Kansas): *Recent results in Cohen-Macaulay theory I*
- 10:00-10:50    **Ryo Takahashi** (Nagoya University): *Recent results in Cohen-Macaulay theory II*
- 10:30-11:00    *Coffee Break*
- 11:00-12:00    **Informal discussion**
- 13:30\_15:00    *Lunch*