



CENTRE FOR QUANTUM GEOMETRY OF MODULI SPACES
DEPARTMENT OF MATHEMATICS
AARHUS UNIVERSITY

Programme:

Masterclass on 'Quantized quiver varieties' 23-27 Mar. 2015

Monday (Aud.D3, 1531-215)

Subject: Nakajima quiver varieties

09:30 - 10:00 Registration, coffee/tea

10:00 Welcome by Associate Prof. Sergey Arkhipov

10:00 - 10:45 Geometric Invariant theory (Jose)

11:15 - 12:00 Moment maps and Hamiltonian reductions (Jose)

12:00 - 14:00 Lunch

14:00 - 14:45 Quiver varieties: definition and examples (Ivan)

15:15 - 16:00 Quiver varieties: properties (Ivan)

18:00 Social dinner

Tuesday (Aud.D3, 1531-215)

Subject: Quantizations

09:30 - 10:00 Coffee/tea

10:00 - 10:45 Quantizations of algebras (Jose)

11:15 - 12:00 Quantizations on the sheaf level (Jose)

12:00 - 14:00 Lunch

14:00 - 14:45 Classification of quantizations. Quantized quiver varieties (Ivan)

15:15 - 16:00 Quantized quiver varieties (cont'd) (Ivan)



CENTRE FOR QUANTUM GEOMETRY OF MODULI SPACES
DEPARTMENT OF MATHEMATICS
AARHUS UNIVERSITY

Wednesday (Aud.D3, 1531-215)

Subject: Representations of quantizations

09:30 - 10:00 Coffee/tea

10:00 - 10:45 Modules over algebras (Ivan)

11:15 - 12:00 Modules over sheaves (Ivan)

12:00 - 14:00 Lunch

14:00 - 14:45 Localization theorems (Jose)

15:15 - 16:00 Counting finite dimensional irreducible representations of quantized quiver varieties (Jose)

Thursday (Aud.D3, 1531-215)

Subject: Lower bound via Webster's functors

09:30 - 10:00 Coffee/tea

10:00 - 10:45 Grassmanian case (Jose)

11:15 - 12:00 Reduction in stages (Ivan)

12:00 - 14:00 Lunch

14:00 - 14:45 Functors for simple roots (Ivan)

15:15 - 16:00 Functors for general roots (Ivan)

18:30 Masterclass dinner

Friday (Aud.D3, 1531-215)

Subject: Upper bound via wall-crossing functors

09:30 - 10:00 Coffee/tea

10:00 - 10:45 Wall-crossing functors. Dimensions of supports via the long wall-crossing functors (Jose)

11:15 - 12:00 Dimensions of supports via the long wall-crossing functors (Jose)

12:00 - 14:00 Lunch

14:00 - 14:45 Scheme of proof of the upper bound. Short wall-crossing functors through real walls (Ivan)

15:15 - 16:00 Short wall-crossing functor through the imaginary wall (Ivan)