

SHEAVES IN REPRESENTATION THEORY

A workshop and conference organised within the framework of the EPSRC network grant "Representation Theory Across The Channel"¹. Sabhal Mòr Ostaig, Isle of Skye, 23–29 May 2010

Monday 24 May	
9h00–10h00	<i>Taylor/Clarke</i> C1 The combinatorics of Weyl groups and Kazhdan-Lusztig polynomials
10h10–11h10	<i>Gal/Gal</i> RT1 An introduction to category \mathcal{O}
11h20 Coffee	
11h50–12h50	<i>Nguyen/Lanini</i> C2 Moment graphs
13h00 Lunch	
14h30–15h30	<i>Fiebig/Juteau/Williamson</i> O1 Overview
15h40 Coffee	
16h10–17h10	<i>Thiel/Spencer</i> GT1 The geometry of Schubert varieties
17h20–18h20	<i>Avni/Martinez</i> GT2 Introduction to algebraic topology
18h30 Dinner (Barbecue, if weather permits ...) & E1 First exercise class	

Tuesday 25 May	
9h00–10h00	<i>Martino/Goodwin</i> RT2 Deformed category \mathcal{O}
10h10–11h10	<i>Kuebel/Sivanesan</i> RT3 Deformed category \mathcal{O} and moment graphs
11h20 Coffee	
11h50–12h50	<i>Virk/Jenkins</i> HA1 Derived and triangulated categories
13h00 Lunch	
14h30–15h30	<i>Begher/Klein</i> GT3 Sheaves and their derived category
15h40 Coffee	
16h10–17h10	<i>Cooney/Groechenig</i> GT4 The Grothendieck formalism and Verdier duality
17h20–18h20	<i>Rumynin</i> R1 Sheaves on finite sets
18h30 Dinner & E2 Second exercise class	

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Wednesday 26 May	
9h00–10h00	<i>Berczi/Elias</i> GT5 Equivariant cohomology and the equivariant derived category
10h10–11h10	<i>Pabu/Thomas</i> t -structures and recollement
11h20 Coffee	
11h50–12h50	<i>Dupont/Fratila</i> PS2 Perverse sheaves
13h00 Lunch	
14h30–15h30	<i>Stroppel</i> R2 Parabolic category \mathcal{O} and Springer fibres
15h40 Coffee	
16h10–17h10	<i>Finkelberg</i> R3 Quantization of Drinfeld Zastava
17h20–18h20	<i>McGerty</i> R4 Categorification and geometrisation of the quantisation of the Frobenius
18h30 Dinner & E3 Third exercise class	
19h30–22h00 Reception, Whisky tasting & continuation of E3	

Thursday 27 May	
9h00–10h00	<i>Riche</i> PS3 Stalks of IC complexes on the flag variety
10h10–11h10	<i>Dudas/Shan</i> PS4 Parity sheaves
11h20 Coffee	
11h50–12h50	<i>Schnuerer</i> PS5 Parity sheaves and moment graphs
13h00 Lunch	
14h30–15h30	<i>Mirkovic</i> R5 Lusztig conjecture for modular representations of Lie algebras
15h40 Coffee	
16h10–17h10	<i>Williamson</i> R6 Two applications of parity sheaves
17h20–18h20	<i>Gaitsgory</i> R7 Geometry of Eisenstein series
18h30 Dinner (Barbecue, if weather permits ...) & E4 Fourth exercise class	

Friday 28 May	
9h00–10h00	<i>Braden</i> R8 Hypertoric category \mathcal{O}
10h10–11h10	<i>Mautner</i> R9 A geometric description of the Schur functor
11h20 Coffee	
11h50–12h50	<i>Fiebig</i> R10 Representations at the critical level
13h00 Lunch & End of programme of talks	
18h30 Dinner	

Programme development:

Peter Fiebig (Erlangen)
Daniel Juteau (Caen)
Geordie Williamson (Oxford)

List of speakers for the invited research talks R1–R10:

T. Braden (Amherst)
M. Finkelberg (Moscow)
D. Gaitsgory (Harvard)
C. Mautner (Austin)
K. McGerty (Imperial)
I. Mirkovic (Amherst)
D. Rumynin (Warwick)
C. Stroppel (Bonn)

