## Loughborough University Department of Mathematical Sciences

## Mathematical Physics Seminars 2013

## Wednesdays 4 pm Room W002

January 9 Piotr Sułkowski (Amsterdam) On knots, super-A-polynomial, and 3d gauge theories

January 16 Paolo Lorenzoni (Milano-Bicocca) Darboux-Egorov system, bi-flat F-manifolds and Painleve-VI

February 13 Leonid Chekhov R-matrix algebra and groupoids

February 15 Sergei Dobrokhotov (IPM, Moscow) Focal points in linear and nonlinear wave equation with degenerating velocity

February 20 Sergei Shadrin (Amsterdam) Frobenius manifolds and topological recursion for matrix models

February 27 Sergei Dobrokhotov (IPM, Moscow) Pseudo-differential operators in homogenisation problems

March 6 Ilia Roustemoglou Integrable differential-difference equations in 2+1 dimensions

March 13 Graham Kemp Dirac monopoles on graphs of platonic solids

March 27 2pm, W190 Georgy Sharygin (Moscow) Geometry and topology of full symmetric Toda system

4pm, W002 Andrei Marshakov (ITEP, Moscow) Dimers, wiring diagrams and integrable systems

April 17 Martina Balagovic (York) Representations of rational Cherednik algebras

April 24 Reiner Kuehn (King's College) Spectra of sparse random matrices and localization on random graphs

May 1 Vassili Gorbunov (Aberdeen) Quantum cohomology and quantum groups

May 8 Marta Mazzocco Confluences of Cherednik algebras and q-Askey scheme

May 15 Dmitriy Rumynin (Warwick) Lie algebras in symmetric monoidal categories

May 22 Antonio Moro (Northumbria) Integrable viscous conservation laws and applications

May 31, W190 Alex Tovbis (Central Florida) Nonlinear steepest descent method for asymptotic of Riemann-Hilbert problems

September 18 Leonid Bunimovich (Georgia) Isospectral transformations: a new approach to analysis of multidimensional systems and networks

October 2 Paolo Lorenzoni (Milano-Bicocca) Deformations of Poisson pencils of hydrodynamic type. An introduction

October 9 Artie Prendergast-Smith Enumerative geometry

October 16 Martin Hallnas A product formula for quartic oscillators

October 23 Burt Totaro (Cambridge) Symmetric differentials and the fundamental group

October 30 Jorgen Andersen (Aarhus) RNA and protein folding via moduli space techniques

November 6 Vasily Golyshev (Moscow and Imperial) Mirror symmetry and Fano manifolds

November 8 (3pm, W190) Andriy Panasyuk (Olsztyn) Compatible Lie brackets: towards a classification

Alexey Bolsinov Jordan-Kronecker invariants of finite-dimensional Lie algebras

November 13 Raffaele Vitolo Reduction and quantization of a rigid body

November 20 Ergodic Theory meeting (Aimino, Baladi, Khanin)

November 27 Rustem Garifullin (Ufa, Russia) TBA Vladimir Rubtsov (Angers) TBA

November 29 Integrable Day (Chekhov, Krasnov, Molev, Rietsch)

December 4 Sergey Oblezin (Nottingham) Macdonald polynomials and Baxter operators

December 11 Veronika Schreiber Buffon transformation for polyhedra

Organiser: A.P. Veselov