



Random matrices & integrable systems

March 4 - 9, 2012

Organizers:

Alice Guionnet (CNRS, ENS-Lyon)
Paul Zinn-Justin (CNRS, Université Paris 6)

This school belongs to a series of joint Mathematics-Physics schools IHP-Les Houches and is organized in the framework of the project «Grandes Matrices Aléatoires» (GranMa) of the Agence Nationale de la Recherche. It aims at bringing together students (graduate school and PhD) and researchers working in all fields of mathematics and theoretical physics related to random matrices. The main courses will focus on the relation of random matrices with integrable systems. Pedagogical talks by the participants will cover a much broader list of topics covered by the GranMa project (eigenvalues distributions, combinatorics, statistical physics models, Laplacian growth, operator algebras and free probability, quantum groups, quantum information, non-hermitian matrices, etc.)

Main Courses:

Marco Bertola (*Concordia University, Montreal*)
& Arno Kuijlaars (*Katholieke Universiteit, Leuven*)

Asymptotic analysis of random matrices
and orthogonal polynomials

Volodya Kazakov (*Ecole normale supérieure, Paris*)

Quantum integrability made classical

Andrei Mironov (*Lebedev Physics Institute & ITEP, Moscow*)

AGT conjecture and matrix models

For registration and information: <http://www.lpthe.jussieu.fr/~pzinn/granma2012/>

Les Houches is a village located in Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with breathtaking views on the Mont-Blanc mountain range.

Les Houches Physics School is affiliated with Université Joseph Fourier Grenoble I (UJF). The school is a joint interuniversity facility of UJF and Grenoble-INP, and is supported by the UJF, the Centre National de la Recherche Scientifique (CNRS) and the Direction des Sciences de la Matière du Commissariat à l'Energie Atomique (CEA/DSM).