MPIM, Specialized workshop

Geometric quantization and topological recursion

November 24-28th, 2014

Organizers : Gaëtan Borot, Peter Teichner, Don Zagier.

This workshop aims at establishing bridges between the geometric quantization of moduli spaces and the theory of the topological recursion developed by Eynard and Orantin. Previous discussions in Aarhus¹ gave a strong indication that the two communities are trying to capture with different languages the same mathematical objects, and that we are close to finding the connection. As an application, we have in view the understanding of the structure of the all-order asymptotics of quantum knot invariants, like the knot state ensuing from the Witten-Reshetikhin-Turaev construction, or the colored Jones polynomial.

Two 5h mini-courses will be held at this occasion :

The Hitchin connection and the Witten-Reshetikhin-Turaev TQFT Jørgen Ellegaard Andersen (QGM Aarhus)

Topological recursion and moduli spaces Bertrand Eynard (IPHT CEA Saclay & CRM Montréal)

The courses will take place every morning of the week, in MPIM Lecture room, 9h-11h, Vivatsgasse 7, Bonn.

^{1.} http://qgm.au.dk/events/show/artikel/masterclass-jan-2013/