Clélia Pech

Title: Quantum cohomology for horospherical varieties

Abstract: Non-homogeneous horospherical varieties have been classified by Pasquier and include the well known odd symplectic Grassmannians. In this talk I will explain how to study their quantum cohomology, with a view towards Dubrovin's conjecture. In particular, I will describe the cohomology groups of these varieties as well as a Chevalley formula, and prove that many Gromov-Witten invariants are enumerative. The consequence is that we can prove in many cases that the quantum cohomology is semisimple. I will also give a presentation of the quantum cohomology ring for odd symplectic Grassmannians. Finally, I will explain mirror constructions in two cases. This is joint work with R. Gonzales, N. Perrin, and A. Samokhin.