

Scientific report for the short visiting grant 5075

The main purpose of my visit in Strasbourg was to attend to the mini-courses and lectures series ‘**Mapping class groups and quantum topology**’ (University of Strasbourg, 25-29 June 2012).

As a result of these lectures series I had the opportunity to start a new research project about quantum invariants of 3-manifolds from the perspective of open book decompositions, by involving the moves I developed in collaboration with Nikos Apostolakis and Riccardo Piergallini (*Lefschetz fibrations over the disk*, arXiv:1104.4536, 2011). This project could lead to some relations between quantum invariants and contact topology, by means of the Giroux correspondence between open books and contact structures.

Moreover, during the visit I met, among many others, Francesco Costantino, Dan Margalit, and Jerome Dubois. With them I had the opportunity to speak about new ideas in the theory of mapping class groups and quantum invariants of 3-manifolds.

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