

Report on my sabbatical visit in France

While I have been a student of Joel Roberts (Minnesota) who was greatly influenced by French algebraic geometers including Grothendieck and Serre via his supervisors Mumford and Hartshorne, I always desired to spend some time in French mathematical institutions.

My Ph. D. student M. Moghaddam was accepted for a cotutelle program between my university and Univ. Paris Sud, Orsay (through IPM and French Cultural Section in Tehran). The opportunity to participate at the CIMPA School on Algebraic geometry and Arithmetic of Curves, July 2004, Beirut, Lebanon, followed right after. There we could talk with Bernard Teissier, who I knew for many years, for the joint student. The other supervisor to be from Orsay, Laurent Clozel, was arranged by Fouad Elzein who was also present in the school. The joint student gave me much motive to spend my sabbatical in Paris. I also met Joseph Oesterle in the school who accepted to visit Zanjan, Iran, for a short time in November 2004. With him I discussed the possibility of a one month visiting position in Paris 6 as my salary would not suffice the living expenses in France. Further on, my application for a three months visit of IHES was also accepted.

In January 2006 I came to Paris. I spent three months at Institut de Mathématiques de Jussieu. I had the opportunity to discuss with Bernard Teissier (in presence of our joint student), Joseph Oesterle, Marc Chardin and attend some seminars in singularity theory and some Cartier seminars. My long time Italian collaborator, Paolo Salmon, visited me at Jussieu, so that we could further discuss. I gave a 2-hours seminar at Jussieu where some experts attended. In particular, I profited most from further discussions by Joseph Oesterle who had attended my talk.

For the months April-June, I moved to IHES where I could work harder and experience its rich scientific atmosphere. In this period, I was invited to University of Nice (by Michel Jambu and Alex Dimca, April 12-14) and a colloquium at Luminy in honor of J.P. Joanlou (by Marc Chardin and Laurent Buse, April 15-19) and University of Grenoble (by Marcel Morales, June 3-5). I offered some talks on my recent research work at these three occasions. In particular, the colloquium at Luminy was extremely useful. I could meet there many friends.

During my stay at IHES, I also visited Laurent Clozel at Orsay with whom we discussed the paper work on our joint student (joint by Teissier, Clozel and me).

Regarding my research, I worked on a depth formula for generic singularities and their weak normality. I have prepared a preprint which I plan to submit shortly.

My visit of France has been highly valuable for me. Besides enjoying the rich mathematical ambient in France, I had several other occasions to discuss issues related to mathematical communities. In particular, it was nice to talk to Jean Paul Allouche, Michele Artigue, Laurent Clozel, Fouad Elzein, Michel Jambu, Joseph Oesterle, Bernard Teissier, Michel Waldschmidt and many others. I am very much determined to help for the improvement of the cooperation between French and Iranian mathematicians.

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