

**Letter of Intent for
Scientific Cooperation between
Iranian and European Higher Education Institutions
in Mathematics**

In order to:

- improve international scientific cooperation,
- strengthen mathematical research and initiate new fields of investigation in Iran,
- create strong links of international scientific cooperation,
- prepare Iranian students to pursue joint PhD studies in Europe,

the following higher education institutions are willing to expand their scientific cooperation in Mathematics at the level of graduate and doctoral studies and research projects:

- Centre International de Mathématiques Pures & Appliquées (CIMPA, Nice, France), Université de Versailles Saint-Quentin (UVSQ)
- Amirkabir University of Technology, Sharif University of Technology, University of Tehran, the Institute for Studies in Theoretical Physics & Mathematics (IPM) and the Iranian Mathematical Society (IMS).

Representatives of the above institutions, with the collaboration of the *Ambassade de France en Iran* (the French Embassy in Iran), have met on several occasions and have agreed on the following:

1. A Joint Committee of European and Iranian mathematicians will be assigned to the follow up of this scientific cooperation. This Joint Committee will include five Iranian mathematicians (one from each of the above mentioned founding universities, plus one from the IPM and one from the IMS), and five European mathematicians (one from the CIMPA, one from the Université de Versailles Saint-Quentin, one from Institut de Mathématiques de Jussieu, one from either of Société Mathématique de France (SMF) or Société de Mathématiques Appliquées & Industrielles (SMAI), and one from a European higher education institution). In the sequel, we refer to this committee as the Joint Committee. The Joint Committee will nominate among its members two coordinators, one Iranian and one European.
2. Each of the above mentioned institutions nominates its representative. The mandate of the Joint Committee is four years and each member can be re-elected at most once.
3. The Scientific Council of the CIMPA will examine the scientific program set up by the Joint

Committee and will give its advice and recommendations once a year.

4. For each academic year the Joint Committee will select one or more specific fields of research in mathematics to concentrate on in Iran with the cooperation of the European counterpart.

5. Each academic year, under the auspices of the Joint Committee, a series of five or more courses, at the level of the second year of Research Master (*Master Recherche 2ème année* in french), will be taught by an invited mathematician (European or else). These courses correspond to the first year of doctoral studies in the European academic standards, and will be inserted in the fifth or sixth years of university curriculum in Iran (*Kaar Shenaasiye Arshad*). Graduate students of Iranian universities are entitled to choose some or all of these courses as part of their curriculum. If necessary, the admission of students for attending the courses will be approved by the Joint Committee.

6. A team of Iranian and European mathematicians will define each course, which includes at least 26 hours of lectures by an invited mathematician (European or else), and the prerequisite and its follow up. It is assumed that each course necessitates some 100 hours of personal work, and any student who passes successfully the corresponding examination will obtain 2 credits according to the Iranian university system, equivalent to 10 ECTS (*European Credit Transfer System*).

7. Students who pass successfully the examinations of five courses, will prepare a *Master Thesis* under the direction of a team of advisors including one Iranian and one European mathematicians. The acceptance of this Master Thesis gives 6 Iranian credits equivalent to 10 ECTS.

8. This item concerns those students intending to prepare a PhD Thesis under the *co-tutelage* of French and Iranian advisors. In the above framework, a french language course corresponding to 64 hours of classes will be taught under the auspices of the *Ambassade de France en Iran*. Students who pass successfully the language course will receive 5 ECTS. For those students who pass successfully the *Kaar Shenaasiye Arshad*, including five of the above mentioned Master 2 courses, the french language course and the *Master Thesis*, the Joint Committee will do its best to award them a “Master 2 Research” from French university, which entitles them to prepare a european PhD thesis. An appropriate agreement will be set up regarding other European institutions.

9. Since the aim of this agreement is to develop and to continue ongoing cooperations between Iranian and European universities, the Joint Committee will do its best to initiate a program under which students graduating from the above mentioned Master 2 studies may do research and prepare PhD theses, primarily under the *co-tutelage* of European and Iranian advisors.

10. The European counterpart will find the budget corresponding to travel expenses and stipend of the European mathematicians, while the Iranian counterpart will cover their accomodation and

local expenses.

11. The Joint Committee will do its best in order to organize workshops and conferences in Iran on subjects related to the program of the courses.

12. European mathematicians who have been involved in the program will write a report at the end of their mission. The Joint Committee will report to the Scientific Council of the CIMPA on an annual basis. The Scientific Council of the CIMPA will nominate two referees in order to evaluate this program after a period of four years.

Addendum. Pending to budget constraints, the *Service Culturel de l'Ambassade de France en Iran* will grant:

- two “*co-tutelle*” fellowships, for students graduating from the above Master 2 Research studies, starting in September 2008. These students will be selected by the Joint Committee;
- two mobility of French mathematicians according to item 6 above, in 2007;
- five mobility of French mathematicians according to item 6 above, in 2008.