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**Subject: Action plan after students' evaluations of the course DM812 at IMADA.**

The course DM812, Metaheuristics, was offered for the first time in the second quarter of the 2008-2009 academic year. Seven students, out of eight who took part at the lectures, filled the course evaluation sheet. One of them answered only partially.

On the whole, the course is perceived as satisfactory. Its organization is judged as suitable within students' curriculum. A common comment has been the request for more concrete application examples and a reduction of the number of topics covered. The topics which have been indicated as good candidate for removal are some of the mathematical proofs and some minor techniques, like the cross entropy method. Overall the content of the course has been evaluated, unanimously, as difficult. During the course each student had to present a research paper from the literature without evaluation on the performance. This has been, in general, appreciated in the comments but improvements are suggested. Finally, although not commented by the students, I perceived that they had difficulties in figuring out what is exactly expected in a good exam project.

On the basis of these comments, the following changes will be considered in the structure of the course for the next edition.

- Increasing the number of application examples by assigning problem solving homeworks and allocating time for the discussion of the solutions in class. This should facilitate the students to better understand the techniques and lower the difficulty of the course.  
The extra time needed for these activities will come from a reduction in the coverage of the theoretical aspects underlying these techniques and from the introduction of exercise hours in addition to the usual lecture hours.
- In the same direction as the previous point, introducing a mid-term

assignment without evaluation. The assignment should be on the techniques taught up to that point, include programming and allow group work. The material of the assignment will then be used for an hands-on session with focus on the comment of the results.

- Improving the paper presentation by devoting more time to it and introducing assessment by peers in class.
- Removing the treatment of cross entropy method.
- Including a guidelines, or common mistakes, sheet or an example project in preparation to the exam project.

Sincerely,

Marco Chiarandini