# Course evaluation for Astrophysical Dynamics (FAS 010/AS 3500)

Course teacher
Dr. Alessandro Romeo, Onsala Space Observatory

Evaluated by the students of 2005/2006

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The Astrophysical dynamics is an important course for those who are motivated to do research in astrophysics. In the lecture period 2 of 2005/2006 this course was given for the students of Chalmers and Göteborg university. The course is also a part of the 'Profile programme in Astronomy and Astrophysics'.

The context of the course was to deal with the dynamical phenomena that we observe in nature, especially in the large scale astrophysical environment. The course started with a general overview on the basic physics (fluid motion etc.). Progressively advanced topics like instability, turbulence, fractals etc. were introduced. Each time good pieces of examples were shown for the better understanding of the students. The teacher was also introduced some hot topics in astrophysics and cosmology and a very powerful method called wavelet analysis.

Concerning the teaching the method was interactive. Although it was a four hours of class we enjoyed its every moment. While describing various astrophysical phenomena the teacher was showing handful of examples that were quite helpful. We the students were also involved in the discussion as guided by the teacher. In every week we had exercises related with practical events and were quite interesting and were consistent with the lectures . One important thing was we practically did not need any book to make follow up studies as the teacher used prepare good lecture handouts (but of course for advance learning a text book is helpful). The suggested book was 'The physics of Astrophysics, Vol II: Gas dynamics' by Frank H. Shu.

The assessment for the course was done by means of a seminar where each students were decided his/her own topic and presented before the class. It helped a lot to have a deep insight in a particular topic. All the topics were related to the current research in astrophysics.

The course ended with an excellent Italian refreshment offered by the teacher (which the teacher say 'gastronomical application' !)

Finally, to summarize, we once again refer to the importance of such a course and hope more students will be interested to take this course in the coming future.