<u>Dat</u>e: Wed, 31 Oct 2001 <u>From</u>: Porto Asteroseismology Conference <<u>porto-ac@astro.up.pt</u>> <u>Subject</u>: Asteroseismology Across the HR Diagram (First Announcement)

Dear Colleague,

Please find below the first announcement of the conference entitled 'Asteroseismology Across the HR Diagram' to be organized by the Centre for Astrophysics of the University of Porto (CAUP) during the week 1-5 July 2002.

The details listed below can also be found at the web address:

# http://www.astro.up.pt/porto-ac

If you feel that you might be interested in attending this conference, let us know by filling in the pre-registration form available at the web address given above, before the end of 2001.

Please forward this information to any colleague that may be interested in this conference.

Best Wishes,

Margarida Cunha & Mário Monteiro (for the SOC).

PS: Our apologies if you receive more than one copy of this email – it is very difficult to avoid some duplications.

# FIRST ANNOUNCEMENT ASTEROSEISMOLOGY ACROSS THE HR DIAGRAM

1 - 5 July 2002, CAUP - Porto, Portugal

### Scientific Organising Committee:

Conny Aerts (Leuven, Belgium) Michel Breger (Wien, Austria) Joergen Christensen-Dalsgaard (Aarhus, Denmark) Margarida S. Cunha (Porto, Portugal) Wojciech A. Dziembowski (Warsaw, Poland) Douglas O. Gough (Cambridge, UK) Steve D. Kawaler (Ames, USA) Donald W. Kurtz (Preston, UK) Eric Michel (Paris, France) Mario J.P.F.G. Monteiro (Porto, Portugal) Michael J. Thompson (London, UK)

#### Local Organising Committee:

M.S. Cunha, D.F.M. Folha, M.J.P.F.G. Monteiro, F.J.G. Pinheiro

#### Scientific Rationale:

With the advent of the space missions dedicated to Asteroseismology, and the increasingly large set of ground based observations, new windows into the unknown aspects of stellar structure and evolution are being opened.

The study of the oscillations present in different types of pulsators has already proven to be a successful approach to probe the internal structure of the stars. Helioseismology has also greatly contributed to our understanding of the inner works of our Sun. With the new observational opportunities for the near future it is timely to evaluate the theoretical tools and observational strategies in order to maximise the return from our efforts to understand stars across the HR Diagram.

In this conference we shall discuss the techniques that are being applied in the studies of different types of pulsators, aiming at determining the major efforts that should be taken in order to learn as much as possible from the data. The topics to discuss will be grouped according to the science and the techniques involved, in order to build the adequate environment for cross--fertilisation between the different fields within Asteroseismology.

# Scientific programme:

One of the goals of this conference is to stimulate the interchange of knowledge between scientists working primarily on different types of pulsators. Consequently, the sections will be organized according to the science and the techniques involved.

Invited reviews (30min) and oral contributions (15-20min) will be included in the programme. There will also be plenty of space available for posters.

The programme will be organized in seven half day sections which will address three main topics:

1. Present observational status (one section):

This will include an overview of both the present ground-based observations and the ongoing satellite projects, followed by talks concerning our current understanding of the data available for different type of pulsators.

2. Asteroseismic techniques (two sections):

The aim is to discuss the techniques that are applied in the process of inferring scientific information from the data (mode identification, techniques of model fitting, inversion techniques, etc). The idea is to promote the discussion of techniques that are used in different types of pulsators across the HR diagram.

3. Asteroseismology constraints on stellar structure and evolution (three sections):

After discussing the data and the techniques in use to infer information from the latter, the aim is to concentrate on the scientific outcome and its implication to stellar structure and evolution. The past contribution of Asteroseismology for the solving of problems related to stellar structure and evolution and the issue of what is presently needed/expected from Asteroseismology will introduce this topic.

#### Social Programme:

There will be a reception, a conference dinner and a full-day excursion. Other events, including Porto Wine tasting and visits to the old town are also expected to take place.

# Pre-Registration:

A pre-registration form can be found at the web page for the conference at;

http://www.astro.up.pt/porto-ac

To be sent before 31st of December 2001.

Details on deadlines, invited speakers, registration, etc will be circulated with the second announcement (Jan 2002).

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