



Seismology Working Group ESTA

The next step in the model comparison

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Following the work during the workshops (Nice and Aarhus) it is now time to prepare the results to be presented in the next CoRoT Week 9 in ESTEC.

We must concentrate on the following key objectives:

- **Complete Task 1 on model comparisons,**
- **Initiate Task 2 on frequency comparisons,**
- **Present the results at ESTEC.**

The work to be completed over the next few weeks should be planned having these objectives in mind.

2005

5

CoRoT Week 8 - Toulouse

Preliminary results
presented for Task 1.

**FINAL WORK ON
TASK 1 IS DONE AND
RESULTS PREPARED
FOR PRESENTATION
AND PUBLICATION**

9

CoRoT/ESTA Workshop - Nice

Updated results of
Task 1 have been
discussed.

Further iteration on
models for Task 1.

CoRoT Week 9 - ESTEC

**A dedicated session on
ESTA is planned (~1:30
hours) and also a
presentation about ESTA
to the *Seismology Working
Group*.**

12

2006

10

Joint Workshop - Aarhus

1) Oral presentation: *Status and achievements of ESTA*

Presentation to the *Seismology Working Group* on what has been done up to now on ESTA and the plans for the near future. The objective is to show everyone that ESTA is very active and productive!

2) Report on Task1 (poster): *Results of the model comparison*

Summary of the main results for Task 1. It should not be a detailed report but instead a grand summary of the outcome of this exercise.

3) Report on Task 2 (poster): *Preliminary results of the frequency comparison*

Report on the preliminary results for the frequency comparison covering the first step of this exercise.

4) Reports on comparisons (oral & poster): *Results of specific comparisons*

Detailed comparisons between specific codes (evolution or seismic) should also be presented on pairs of codes and on specific targets/items of particular interest.

This will be an oral presentation on ESTA, its organization and major results obtained so far as well as on the plans for the near future.

It may include a description of:

- **Key objectives to be fulfilled,**
- **Who participates in ESTA and what tools have been involved,**
- **Strategy and modus operandi,**
- **Description of the Tasks already initiated and brief summary of the key results.**

Any suggestions and/or contributions are welcome.

Data to be prepared: ~15 November

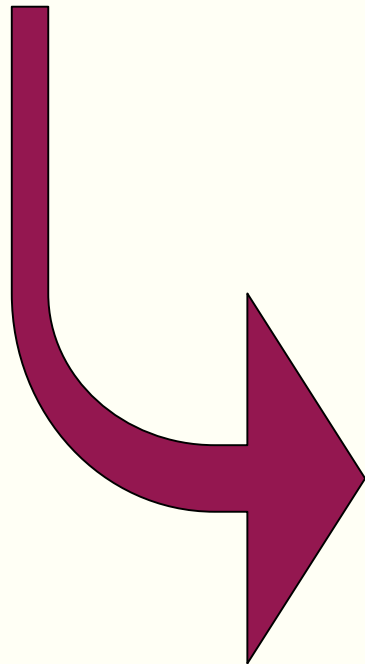
Calculate updated models for all targets (where necessary)

Obtain the global parameters

Obtain the detailed structure

Obtain the evolutionary sequence leading to each case

This report will include all people involved on producing models for Task 1 and working on the comparison.



Results to be reported

Comparison of the global parameters

Comparison of the evolutionary sequences

Comparison of ***X*** and ***c***

Estimates of the frequency differences for all cases

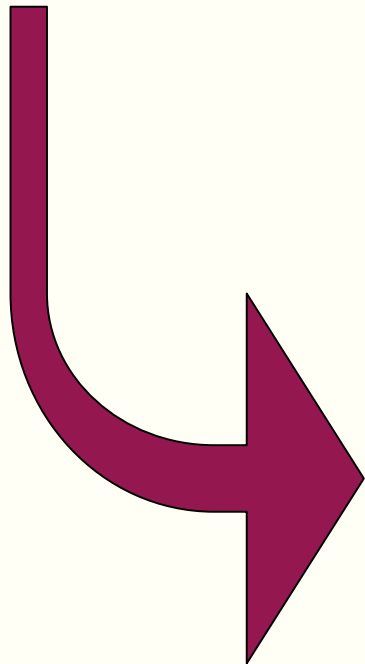
Data to be prepared: ~20 November

Make available a set of reference models

Obtain the frequencies calculated with each code

Test the effect of the mesh and boundary conditions

**This report will include
all people involved on
producing the
frequencies.**



Results to be reported

Preliminary comparison of the frequencies

Identification of possible items to analyze further

As many reports as possible on specific comparisons between pairs of codes and on particular targets or key aspects of the modelling should be prepared and presented.

These reports can be either presented as

- **as posters or**
- **as oral contributions at the thematic session dedicated to ESTA.**

It is important that some of the detailed work already done on comparing pairs of models, specific aspects of the physics, etc, are presented at ESTEC.

An email will be sent out to the ESTA team very soon (!) asking for proposals for a few oral contributions to be included in the thematic session during the CoRoT Week. Details will be defined with the organization of the CoRoT Week.

It is now also important that the results achieved so far are published. Two options are available (and should both be used):

- **Publication on ESTA** in the CoRoT Book (to be published by ESA) - this will include a detailed description of has been done and the major implications for the CoRoT community of the work developed by the ESTA Team.
- **Publications in journals** - these should focus on the details of the comparison, by reporting some of the most interesting aspects that have been addressed in this exercise.

The ESTA work will proceed in 2006 (mainly focus on frequency comparisons).

The model comparison will also proceed both under ESTA and also as a wider exercise open to all and as part of the co-ordinated action HELAS of the European Commission.

All information and data will be available on the ESTA website:

<http://www.astro.up.pt/corot/>

The presentations and reports of this meeting will also be made available.

The development of tools for exchanging models and supporting the computation of the frequencies will continue. Please send all information that can be relevant for extending as much as possible these tools.

Stay tuned and continue calculating models and producing results on comparisons...

See you in ESTEC!

