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| | Minutes of the 33rd Scientific Committee Author: Annie BAGLIN | COROT.LESIA.09.010 Version: 1 Date: 29/09/2009 |
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Minutes of the 33rd Scientific Committee

Held at CNES HQ Paris, on September 25th 2009


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| Prepared by par: | Annie Baglin | |
| Accepted by: | The SC members | |

MODIFICATIONS OF THE DOCUMENT

| Ed. | Revs. | Date | Modifications | Visa |
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REFERENCE DOCUMENTS

| Reference | Title of the document |
|-----------|---|
| SC32-DR1 | Mission Status C. Donny on behalf of O. Vandermarcq |
| SC32-DR2 | Evaluation of the exo-imagettes pipe-line M. Ollivier |
| SC32-DR3 | Results from the exo-Imagettes of SRa01 K. Zwintz |
| SC32-DR4 | Data Production S. Chaintreuil |
| SC32-DR5 | Archives F. Baudin |
| SC32-DR6 | Status of the proosal for the extension O. La Marle |
| SC32-DR7 | Fields for LRa03, SRa03, L Rc05 |

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DIFFUSION:

| | | |
|------------------|-----------------------|---|
| G. ALECIAN | OPM | X |
| M. AUVERGNE | OPM/LESIA | X |
| A. BAGLIN | OPM/LESIA | X |
| F. BAUDIN | IAS | X |
| C. CATALA | OPM/LESIA | X |
| S. CHAINTREUIL | OPM/LESIA | X |
| M. DELEUIL | LAM | X |
| M. FRIDLUND | RSSD/Estec | X |
| R. GARRIDO | IAA/Spain | X |
| T. GUILLOT | OCA | X |
| E. JANOT-PACHECO | Sao Paulo University | X |
| L. JORDA | LAM | X |
| E. MICHEL | OPM/LESIA | X |
| C. MOUTOU | LAM | X |
| A. NOELS | IA Liege | X |
| M. OLLIVIER | IAS | X |
| H. RAUER | DLR Berlin | X |
| D.ROUAN | LESIA | X |
| I. ROXBURGH | QMW London | X |
| J. SCHNEIDER | OPM | X |
| G. VAUCLAIR | OMP | X |
| W. WEISS | IA Vienna | X |
| K. ZWINTZ | IA Vienna | X |
| O. LA MARLE | CNES, Paris | X |
| O. VANDERMARQ | CNES, Toulouse | X |
| C. IMAD | OPM/LESIA/secretariat | X |

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Participants:

All members except G. Alecian, L. Jorda, H. Rauer, P. Barge, O. Vandermarcq
Invited: C. Moutou, K. Zwintz (as the Austrian observer in the absence of WW), S. Chaintreuil, F. Baudin, C. Donny

1 Introduction

D. Rouan depicts rapidly the Barcelona meeting, and the success of the announcement of the mass of CoRoT-7b plus the discovery of CoRoT-7c.

It has been said that it was a very important step, as important as the discovery of 51 Peg. The ESO press release has been very successful, and many papers appeared in the international medias.

2 Mission status

O. Vandermarcq could not attend the meeting.
C. Donny the on board ingenior at CNES presents the mission status (see SC33-DR1).

Run LRc04 is almost finished.

The TM losses are very small, which means that the situation is improving both at Aussaguel and at Alcantara.

The new on-board software allowing more oversampled targets will be uploaded.

With the increase of the imagettes, the volume of TM will be almost the same as when we had the 2 CCDs.

The default of chain 1 is still under investigation, with the contribution of many teams.

Due to the launch of SMOS, on November 2nd, the operational teams (common to all the PROTEUS missions) will be very busy. So it is decided to have a long run first with no operation for CoRoT during this period.


The next one LRA03 will start at the end of next week, in a very favourable position for the CCD Temperature.

The drift will be stopped only in April 2010.

3 Test of the exo-imagette pipe-line

M.O. presents the estimate of the quality of the light curves recovered through the imagettes pipeline for IRa01 and SRa02. He shows that the S/N is as good as the S/N of the classical aperture photometry, for the same magnitude. The slightly saturated targets seem to follow the same trend. (see SC33-DR2)

K. Zwintz shows the results obtained at Vienna with a simplified reduction and with the present pipe-line, on the 14 imagettes of quite bright stars of the cluster NGC2264 in SRa02.

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She considers them as of very high quality, allowing to discover new variables, confirm known ones, and also “constant A stars (see SC33-DR3).

4 Data

4.1 Treatments:

Presented by Sylviane Chaintreuil, (see SC32-DR4).

Some improvements in the chain have been added: treatment of aging and temperature gaps. A correction of the temperature variations needs detailed studies, which will be done by the ingenior to be selected next October at LESIA.

A discussion should be organised at the next SC.

The exo imagettes pipe-line is now working (see §3).

The sismo imagettes pipe-line is finished. But there is still some tuning to be done to merge the imagettes results during the SAA and the classical light curves.

The first delivery could occur in January. A validation group, as for the exo)imagettes would be welcome

4.2 Planning of deliveries (see SC32-DR4).

The planning shows that it is now possible to deliver the data less than 6 months before the end of a run.

Let us recall that at the last SC it has been decided that:

- To improve the efficiency of the transit detection and of the FU programme, P.B. proposes to deliver the N1 alarm data through the Wiki to the whole CEST.
- W.W. asks for accessing the data of the oversampled AP targets asap, to modify the list, if needed. **LAM will be in charge of this access.**

4.3 Archives

F. Baudin (see SC33-DR5) shows that the archive is working very satisfactorily and that the public part has a “constant” rate of queries, always dominated by the United States.


The present archive contains some data coming from either ground based observations (spectral classification) or from treatments of the light curves (variable classification). As these kind of data are sometimes quite uncertain, it is proposed to include in the front page of the archive some warning about the use of these data.

Action SC33-1: The texts will be written by Claire for spectral classification and Frederic for periodic variables classification and inserted on the archive page by IAS.

The question of the long term archives is raised and the Sc did not have sufficient information. But its importance is stressed for the future, See (4.4).

4.4 CDC Review

AB, as responsible for the CDC, informs the SC that a simplified review of the different components of the CDC will be held by the end of November, associating all the partners.

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The peer review is not yet decided, but will contain people outside the project.

5 The extension of the mission

O. La Marle presents the conclusions and the recommendation of the Review held in June (see SC33-DR6).

The extension of the mission has been approved for 3 years starting on April 2010.

The CoRoT line has been modified and implemented in the CNES budget, following the proposal, and is under signature.

A Steering Committee, including all actors, CNES, French labs and partners will be held on October 23rd, and the decision should be taken officially at that date.

Among the recommendations, it is asked to include in the SC a few young active members of the CoRoT Community (see § 10.1).

6 The observing programme

The next winter season will contain a long run and a sort run, belonging still to the initial programme.

- **LRa03** is now ready.

The sismo field contains the solar-like star HD 43587 (see SC33-DR7) and some interesting variables.

Though the exofield is quite poor, it has been possible to select more than 6000 targets, including 46 stars belonging to the open cluster NGC 2186, a known eclipsing binary, a Be star, a delta scuti star.

- **SRa03** is dedicated to the SdB star KPD 0629 -0016 in the exofield

EM proposes a position (see SC33-DR7) but stresses that there are no ground observations available yet to fix the selection. C.C. proposes to include these stars in the next Narval run in december and to ask Hans Bruntt to make the analysis. Results should be available at the end of december

Action SC33-2 E.M. provide CC with a list of targets to be observed

Concerning the exofield, C.M. proposes to use the 2-MASS data, as no complementary observations could be made now.


Action SC33-3: EM Provide CM with the preliminary position of SRa03.

- **Runs of summer 2010**

Following the recommendations of the REVEX, it is asked to have the positions of the runs fixed at least 3 months in advance. For this period it means **January 2010**.

But to prepare the additional programmes it is important to have approximate positions asap.

E.M. recalls that the SC had decided to postpone the former LRc03, as there was a request from the exoplanet team to have very urgently observations in good selected fields and only

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for 90 days. Though the field is not considered as good for the exoplanet programme it was said that this run had to be done asap.

So it is now time to plan it!

The SC agrees that it will be the first run of the season.

The run should be called LRc05. The principal target is HD 170580.

As there is only one CCD, the optimisation has to be revisited.

There are ground based observations for the exoplanet field.

Action SC33-4: EM and CM check the field and the criteria to reach an approximate position asap (October 10th?)

It is also important to decide rapidly the duration of this run, and to define the following one.

It will have to be done at the next SC

7 International collaboration, data policy

O. La Marle announces that the CNES/NASA agreement has been signed.

Concerning the CoRoT Keck time the SC stresses that the rules written in this agreement should be fulfilled rigourously (The CoRoT data right document is an Annex of the agreement), and that the US scientist, PI of the KECK proposal, and CoRoT associated scientist, should participate to the CEST activities and be aware of the methods used by the CoRoT community at least for publications.

Concerning the HARPS time, there seems to be a need for clarification about the rights during the proprietary period.

These two problems of data policy concerning the exoplanet programme will be discussed at CST on October and the conclusions presented for approval at the next SC.

Action SC33-5: MD, CM present the conclusions of the CEST on FU data policy at the next SC

8 Meetings and workshops

It seems that there is no need for thematic meetings, in addition to those which are organised world wide in the different fields.

However the SC confirms the project of a second CoRoT Symposium in early 2011.


This meeting will be held in Marseille.

P. Barge has already started to contact supports and look for a place.

Action SC33-6: MD and CM will discuss with him and propose an organisation at the next SC.

Some members feel that in the seismology community, there is a need for a meeting of the CO-Is to examine the return of the observations already done, the share of task and the priorities for the extension, including the seismology programmes in the exoplanet field.

Action SC33-7: EM organises the seismo co-I meeting in early 2010.

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9 Publications

9.1 A and A CoRoT special feature

It is finished. AB stresses the excellent cooperation with A and A and the important work they have done during the summer...and also the referees!

It will be on-line on October 2nd

It contains 53 papers. Very few were rejected. Some are still pending in the discussions with referees and then have not been included in that volume.

There are several new papers being submitted...so the next volume will also contain CoRoT papers!

The booklet (400 copies of 500 pages) will be send to Meudon and Leuven on October 20th.

9.2 The OAMP Web page

It was decided to renew it, long time ago.

Help!

9.3 A general information sheet

TG says that there is a need for a short noptice, emphasizing the recent results, and explaining them to non specialists. Though we had little time to thinl about it, it was considered as an excellent idea.

Let's remark that at each CEST meeting, the CEST issues a Communiqué, relating the last facts. This could be enlarged to the whole CoRoT programme

Discussion at next SC ?

10 General management of the SC

10.1 Evolution of the composition of the SC

* P. Barge has decided to resign. He will remain CO-I.

The SC thanks Pierre for all the work he has done for the success of CoRoT and wishes him great achievements in his theoretical activities.

So the LAM team proposes to replace Pierre by Magali and Magali by Claire, as Claire is more involved in the FU activities.

This is evidently accepted and the SC welcomes Claire.

* As we are now in the exploitation phase, it is important to have regular informations on the data distribution. Sylviane C. and Frederic B. were already invited at the SC.


AB proposes to nominate them as permanent members

* The review peer for the extension has recommended to introduce in the SC new young scientists strongly involved in the data analysis and interpretation.

AB remarks that for sake of efficiency, the SC should not be too large.

To nominate these new members, each present member is asked to propose 2 or 3 names, and AB will present a synthesis at the next SC.

Action SC33-8: AB prepares a list of new members of the SC.

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10.2 List of Co_Is

No modification . See SC32.

10.3 Next SC

As Paris Observatory plans to organise a party for the 3rd CoRoT birthday on December 16th in the evening, it is proposed to have the next meeting

on December 16th at Paris Observatory.

11 Actions

Action from SC28

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| SC28-4 | Document on corrections | SC, MA, AB | Dec 2008 | |
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Actions from SC33

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|----------------|--|--------|---------------------------|--|
| SC32-1 | prepare a warning for the archive | CM, FB | ASAP | |
| SC32-2 | Send the list of targets of SRa03 to CC | EM | ASAP. | |
| SC32-3 | .Send the proposed position for SRa03 to CM | EM | ASAP | |
| SC32-4 | Position for LRc05 | EM, CM | october10 th ? | |
| SC32-5 | Discussion of FU data policy at CST and report | MD, CM | Next SC | |
| SC32- 6 | Preliminary organisatio of 2 nd CoRoT symposium | MD, CM | Next SC | |
| SC32-7 | organise at sismo-Co-I meeting | EM | early 2010 | |
| SC32-8 | propose a list of new SC members | AB | Next SC | |