

Minutes of the 31th Scientific Committee

Author: Annie BAGLIN

Reference:

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Date: 19/03/2009

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# **Minutes of the 31st Scientific Committee**

Held at Institut d'Astrophysique in Paris, on March 9th 2009

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

## MODIFICATIONS OF THE DOCUMENT

| Ed. | Revs. | Date | Modifications | Visa |
|-----|-------|------|---------------|------|
| 1   |       |      |               |      |

## REFERENCE DOCUMENTS

| Reference | Title of the document                      |
|-----------|--|
| SC29-DR1  | Future pointings E. Michel                 |
| SC29-DR2  | Pipelines of corrections M. Auvergne       |
| SC31-DR3  | Pipeline for the exo-Imagettes L. Jorda    |
| SC29-DR4  | Planning of Data deliveries S. Chaintreuil |
| SC29-DR5  | Extension, first ideas A. Baglin           |
|           |  |



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## **DIFFUSION:**

| G. ALECIAN       | OPM                   | X |
|------------------|-----------------------|---|
| M. AUVERGNE      | OPM/LESIA             | X |
| A. BAGLIN        | OPM/LESIA             | X |
| P. BARGE         | LAM                   | X |
| C. CATALA        | 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 |
| 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 |
| O. LA MARLE      | CNES, Paris           | X |
| O. VANDERMARQ    | CNES, Toulouse        | X |
| C. IMAD          | OPM/LESIA/secretariat | X |



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## **Participants:**

G. Alecian, M. Auvergne, A. Baglin, P. Barge, C. Catala, M. Deleuil, R. Garrido, T. Guillot, O. La Marle, E. Michel, A. Noels, M. Ollivier, H. Rauer, D. Rouan, I. Roxburgh, J. Schneider, G. Vauclair, O. Vandermarcq, W. Weiss

Non-attendees: M. Fridlund, E. Janot-Pacheco,

## 1 Mission status

Olivier V. presents the last operations and the overall status of the satellite Everything was going well.

But on Sunday there has been some pbs with the chain n°1, to be understood and hopefully repaired. Even if it cannot be repaired, the mission will continue on one chain. This is a scenario of degraded mission already studied during the definition phase.

Again, there has been some loss of data due to defects of the ICONES network.

The SC stresses the importance of the continuity of the observations, which is a major quality of CoRoT. The photometric quality of the data is so high that the aliases of the window in the Fourier Spectrum can become the major source of limitation.

This is nicely illustrated in SC31-DR2 by M. Auvergne, where one sees that the addition of the points inside the SAA reduces considerably the window effect.

To a question by J. Schneider about the influnce of the debris produced by the recent collision of two satellites, O. Vandermarcq answers that it is under study.

## 2 The launch of Kepler

The launch has been successful. The SC send a message to the team.

Dear William, David, and Kepler team,

On behalf of the CoRoT Scientific Committee, which is meeting today, and the whole CoRoT community, I would like to warmly congratulate you for the successful launch of Kepler. We sincerely hope that the Kepler mission will be a great success, and look forward to a fruitful and exciting complementarity with CoRoT.

## 3 The symposium debrief

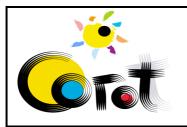
All the members agree that the symposium was successful, and speeded up a lot of activities in the scientific community.

The different contributions are gathered by A.B. for the Web page, which is managed by Colloquium.

It is agreed that another general CoRoT meeting should already been planned.

It is proposed to held it in 1.5 to 2 years in Marseille.

**Action SC32-1**: P. Barge: make a more precise proposition at the next SC.



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In addition it seems necessary to held also thematic conferences in between.

For seismology it could be integrated in the HELAS organisation.

For exoplanet, it should be discussed at the next CEST meeting.

Decisions should be taken at the next SC.

Action SC32-2: P. Barge, E. Michel: make more precise propositions at the next SC.

## 4 Observing programme

Choice of the next fields and planning: see SC31-DR1

#### LRc03, bloc 1673

The position already discussed is confirmed. The CoRoTsky data base, as well as a new version of the software are being installed at CNES.

The final programming will be done next week.

#### SRc03.

EM discuss the interest of observing solar like stars in short runs, and conclude that it is worth doing it, as the seismic behavior of solar like stars seems to be different from one star to another and not yet completely understood.

For cool stars, the damping times are small and it can be possible to detect the modes in a SR. So he proposes to observe a field close to LRc03, containing such an object.

#### LRa03

The field has already been selected. It is quite poor for the exoplanet programme Some tuning will be done later on.

#### SRa03

The field has already been selected around one SdB target, but some flexibility remains also It is asked by the exoplanet team to observe the short run before the long one. This demand is Accepted.

## 5 Data

## **5.1** Status of the pipe-line:

## 5.1.1 Seismology imagettes

See SC31-DR2

The photometry is not more accurate, but points recovered in the SAA increase significantly the duty cycle (90 to 98 %) and reduce the window effects.

#### **5.1.2** Exo: Imagettes

See SC31-DR3

L.J. stresses that presently the SAA and the eclipses remain a difficulty.

The duty cycle is around 86%



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## 5.2 Planning of delivery

The planning prepared by S.Chaintreuil. (see SC31-DR4) has a few weeks delay compared to the planning presented at the last SC, due to the correction of a small bug. This new planning is accepted.

## **5.3** A possible implementation of the Mazeh algorithms?

After an extended discussion, it seems that this very promising approach needs some more work and in fact modifies the signal. So it is decided not to try to include it in the pipe-line; results will be available through the wiki exo page

#### 5.4 N3 products: The classifier CVC and the results

AB summarises the discussion of the last Co-Is and GIs meeting.

The tool and some results are submitted to A and A. But there is a need for validation and tuning specially for the most interesting but most difficult part of the low amplitude stars. So the authors and the whole GI community involved in Variables feel that presently the data should remain in the private domain.

The SC accepts this proposition.

## 6 Scientific Policy and Data Rights document

## 6.1 List of authors in special cases

Paper on the small planet.

D. Rouan, on behalf of all the authors) asks the SC for his advice on the authors list. After a long discussion it is proposed to apply the rules of the Scientific Policy and Data Rights (SPDR) document: Five first authors and among them at least one builder. The five first authors are: A. Leger, D. Rouan, J. Schneider, P. Barge, M. Auvergne. The team proposes also to put just after the 5 firsts a list of scientist deeply involved, in reverse alphabetic order, and then finish the list using the alphabetic order. This is ac cepted by the SC.

Seismology Type I papers

As recalled by EL, the rules state that a Type 1 paper should contain a builder on the third position. They state also that such papers should be posted on CoRoT pub before being send to an editor, and that they should not be put in a public site, to preserve the modelers of the CoRoT community.

In some ways, these rules were not applied for the submission of the Kallinger paper on solar like oscillations in HD 49933.

AP papers

Nothing special was written in the SPDR document. W. Weiss proposes that GIs follow the same rules as the seismology ones for their publication. This is accepted by the SC.

Action SC31-3: These minor modifications will be included in the SPDR by AB asap



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## 6.2 Use of public data

Authors will be kindly asked to include the magic sentence in their paper: The CoRoT space mission, launched on December 27th 2006, has been developed and is operated by CNES, with the contribution of Austria, Belgium, Brazil, ESA (RSSD and Science Programme), Germany and Spain.

## 7 The special feature

Presently 60 papers have been received by A and A corresponding to 400 pages. Approximately 10 more should be submitted in a few days.

This is a success. Let us see how the referring works

#### 8 Extension of the mission

## 8.1 Introduction

O La Marle presents the actions to be taken and the general planning.

He is in favor of asking for a two years extension.

The first step is a formal letter to CNES, which has to be send asap.

AB presents a project of letter to the programme directorate, which seems OK.

## 8.2 Preliminary ideas

They have been collected by e-mail by A.B. (See SC31-DR5).

There is evidently two needs. The first one is an extension of the sample, and the other one, at least for exoplanet, a reobservvation of the same fields one year after.

## 8.3 Discussion, actions and Planning.

The different ideas are numerous and correspond to several years of mission. It is proposed to present all of them to show the possible impact of CoRoT, and then to focus on a priority programme for two years.

The first version of the proposal should be ready by the end of March.

It will be presented at the ad-hoc astronomy group in April and then follow the classical CNES advisory path for a final decision by this summer.

#### 9 Meetings

## 9.1 CO-Is GI meeting

No need presently

## 9.2 CoRoT at IAU

2 presentations by AB at the IAU symposium 264 and at the joint discussion on "Helio and Asteroseismology".



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## 10 General management

#### 10.1 Nomenclature

Following a suggestion by Jean Schneider, the naming of the Corot planets is simplified Instead of CoRoT-exo-nb, use **CoRoT-nb** 

## **10.2** International cooperations

There has been two answers totThe Keck call for observations.

One by Endl, asking for 8 nights of VR observations

One by Ciardi, asking for 2 nightds of high resolution imaging.

## 10.3 Evolution of the teams:

We have received requests for adding new members on their teams by from

- Lanza (I. Savanov, Moscow, Stellar variability and Microvariability),
- \*Weiss (D. Guenther, Canada, Asteroseismology and stellar modelling- H-E Froehlich, Postdam, Surface imaging),
- \*Alecian. (M. Gebran, Barcelona, Abundance stratification and stellar variability). They are accepted.
- \* The request by C. Beichman of having D. Ciardi should have been done by Magali. In fact as Ciardi is the PI of a KECK proposal, he will become associated scientist as soon as the proposal is accepted.

## 10.4 Next SC meeting.

Between May 18th and 27th

Action SC31-4: AB organises a Doodle

## 11 Actions

**Actions from SC28** 

| SC28-4 | Document on corrections | SC, MA. AB | Dec 2008 |  |
|--------|-------------------------|------------|----------|--|
|--------|-------------------------|------------|----------|--|

## **Actions from SC30**

| SC30-6 | Observation of 165 in the sismo field | MA. | asap |  |
|--------|---------------------------------------|-----|------|--|

## **Actions from SC31**

| SC31-1  | Next Symposium in Marseille  | PB     | next SC |
|---------|------------------------------|--------|---------|
| SC31-2  | Thematic conferences in 2010 | EM, PB | next SC |
| SC 31-3 | update the SPDR document     | AB     | asap    |
| SC31-4  | Doodle for the next meeting  | AB     | asap    |