

Minutes of the 44th Scientific Committee

Author: Annie BAGLIN

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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	
SC44-DR1-OV.pdf	Mission status	
SC44-DR2-EM.pdf	Recent publications in seismology	
SC44-DR3-EJP.pdf	The Brazilian contribution	
SC44-DR4-AB.pdf	The NGC2264 multisat campaign, first meeting	
SC44-DR5-HD.pdf	A CoRoT week in Tenerife	
SC44-DR6-WW.pdf	The additional programmes WG	
SC44-DR7-SB.pdf	The imagette pipe-line	
SC44-DR8-MO.pdf	Photocentre position	
SC44-DR9-PB.pdf	Use of colors to detect false-alarms	
SC44-DR10a-SC.pdf	Data status	
SC44-DR10b-SC.pdf	Correction of the background	
SC44-DR11a-EM.pdf	Winter observations	
SC44-DR11b-EM.pdf	Priorities in CoRoT III	
SC44-DR12-KZ.pdf	A possible proposal for a reobservation of NGC2264	



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Participants:

All members except

- T. Guillot, still in the US,
- E. Poretti observing in Chile,
- J. Schneider,
- F. Baudin in England.

Roi Alonso is replaced by Hans Deeg from IAC too.

S. Barros is invited to present the results of the imagette pipe-line.

1. Mission status

Olivier V. presents the last recent news about the mission, which is still performing very well (see SC44-DR1-OV.pdf), after 2015 days in orbit, and almost 300 weekly meetings of the operational team (GPOM).

The summer season contains only two different pointings of 83 days each.

The data losses are now very small thanks to the very secure system for the download of the PLTM. The Vienna antenna is performing very nicely. There is still some concern about the Alcantara system.

The annual REVEX has been held in April 26th and the review for the extension (REDEM) on April 27th.

The CNES CODIR (Comité de direction) has proposed the extension. The next and last step is a meeting of the Steering Committee including all the partners, which will probably be held in early fall. To organise it, Olivier La Marle asks the representative of the partners to send asap the contact person who will represent the country at this meeting.

Action SC44-1: Partners send contact person for the Steering Committee to OLM asap

2. Papers, meeting s and Outreach

2.1. Recent papers

EM presents a few papers recently published in seismology (see SC44-DR2-EM.pdf):

- * Detection and first characterization of gravito-inertial modes.
- * Seismic and spectroscopic analysis of the 2 components of a binary, including a sub giant showing mixed modes
- * The project of a Nature paper on the detection of different stellar populations through seismic indexes of red giants

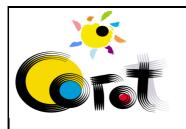
In the exoplanet domain, MD cites

- * one discovery paper with two planets should be finalized this summer. New planets and some promising candidates that will benefit the summer campaign will be published this fall. * one paper by S. Czimadia on the influence of limb darkening in the estimate of the parameters of a transit has been submitted. At least two other papers are in preparation:
- one lead by M. Fridlund on the homogeneous re-analysis of lanet host stars up to corot15;
- a second led by M. Deleuil that will present all the transits detected from the CoRoT light curves analysis, their accompanying FUp observations and their identification in terms of planet, candidates, blends and EB.

2.2. Brazilian contribution

EJP recalls the different contributions of Brazil (see SC44-DR3-EJP.pdf)

- * On the instrument
- * On the ground segment



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- * In stellar spot modeling and transit
- * In PMS stars activity
- * In seismology, essentially on hot stars

2.3. Wikipedia and Upgrade of the Scientific Results web page

PB tells that the Wikipedia page on CoRoT is very good, but insists essentially on planets. He proposes some improvements for illustrations (asked to CNES) and for seismology. AN proposes to do it.

Action SC44-2: AN Propose an improvement of the Wikipedia paper. Asap!

HD proposes to remove the obsolete web-site http://corot.oamp.fr/ or to add a clear statement on its frontpage of the kind "This page is no longer maintained; please visit http://smsc.cnes.fr/COROT/ ".

2.4. Meetings

MD summarizes rapidly the CEST meeting held yesterday.

A few secured planets are now counted. Several promising candidates will be further screened out by follow-up observations this summer. AB reviews rapidly the Madrid meeting on the NGC2264 coordinated campaign (see SC44-DR4-AB.pdf).

EM recalls the annual meeting of the French Astronomers (SF2A) in Nice where the Brazilian astronomical society was invited.

AN recalls the Liege meeting next week on late stages of stellar evolution.

2.5. A CoRoT week in winter

Hans D. presents the project to held a 3 to 4 days meeting in Tenerife in late January (see SC44-DR5-HD.pdf). Roi A. will also contribute!

Some discussions concern the type of meeting: more workshop and less symposium. AB proposes to have a session dedicated to the mission itself and not only the scientific results.

Is it also interesting to have a session on data treatment and properties? where users can exchange their experiences.

The meeting will be restricted to the CoRoT community and a few invited persons, but not widely open. It is also proposed to make efforts to find support for young people It is decided to call it CoRoT Week 11 with a subtitle...

3. Evolution of the different structures of the project.

As we are now entering soon a new extension, and that we have gathered a lot of experience on how to work, it is a good time to modify and evolve our management, if necessary. Several topics have been presented and discussed.

3.1. Status of the Additional Programmes and of the AP Working group

WW presents the background leading in the early days of the CoRoT project to the establishment of an Additional Program Working Group (APWG) as complement to what was then called "Core Science". During nine years of operation several subteams developed focusing on specific target groups with a tendency of merging with and extending of Core Science. Meanwhile, most members of APWG subteams are also involved in Core Science projects and vice verse, hence a dedicated APWG seems to be obsolete (see SC44-DR6-WW.pdf).



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3.2. The instrument scientist and the instrument team

MA announces that as he will retreat soon, he does not want to continue to be the official instrument scientist. He proposes to be replaced by Marc Ollivier, who accepts this responsibility. Michel says that he will still act as an expert when necessary.

The scientific Committee thanks warmly Michel for all what he has done and stresses that he has been one of the major person who has made CoRoT a success.

MO, now our IS, proposes to built a new sort of instrument team, gathering experts of the different disciplines. He foresees a first meeting in September.

He also remarks that for the operations the team who covers the expertises has a very critical size, and that some redundancy should be installed.

Action SC44-3: Built a new Intrumental team and propose a first meeting in Early fall, MO.

3.3. Others

For the extension we can think also to upgrade the list of SC members, to improve the representation of its major programmes. Same thing for Co-Is

Concerning the publication policy do we still need Builders?

It is proposed that these topics should be discussed after the official final decision for the extension, and it should lead to a new version of the Data policy document.

4. Data

4.1. The exo imagette pipeline

S.Barros presents the recent evolutions of the Imagette pipe-line (see SC44-DR7-SB.pdf). For non saturated stars it is working well.

New corrections thus as correction of temperature effects are currently under test and will be implemented in the next version of the pipeline this fall.

The barycenter curve derived from the imagette data is proposed to be delivered as a new CoRoT product.

The difficulty of treating saturated stars is stressed by Susan, but Konstanz Z. recalls that she has treated imagettes of saturated stars in SRa01 (delta scuti pms stars) and obtained very good results. To be understood.....by the new instrument team!

4.2. Computation of the barycentre

MO recalls the need to detect contaminants to reduce the number of false alarms candidates before the follow-up and particularly the on-off photometry. A possibility is to measure the position of the photocenter and detect its variations. (see SC44-DR8-MO.pdf). The expected performance lets suppose that a contaminating phenomenon can be detected if it is located further than 5 arcsec from the main target. MO shows also that the chromatic information can also allow such a detection, but only along the dispersion direction. (see SC44-DR8-MO.pdf).

4.3. Detection of contaminants with color Information

Pascal B. presents a method based on colors which is also able in many cases to give an information on the contamination (see SC44-DR9-PB.pdf).

Before a generalization of one or both methods, MO proposes to compare the real performance of them using the imagettes on 2 or 3 targets for which the nature of the contaminating source (type, magnitude, distance...) has been identified, and applying the foressen data processing.

Action SC44-4 Organise the test of the different methods for contaminants detection, MO, asap



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4.4. Treatments and deliveries

SC presents the status of the treatments (see SC44-DR10a-SC.pdf). She remarks that reprocessing is quite time consuming and also that the manpower available is a little short!

Then she shows the problems raised by the evolution (aging) of the background, discovered recently for the reobservation of NGC 2264 (see SC44-DR10b-SC.pdf) which will need a more elaborated correction. It will have to be discussed in fall in the new Instrument team (see 3.2) lead by MO, and a method of correction will be decided and implemented asap.

Action SC44-5: Define and implement a new correction of the BKG, MO, SC, MA, asap

5. Observing programme

5.1. What has been observed recently

LRc09 has been dedicated to HD 179079, hosting a non-transiting planet.

EP has send very recent results of Harps spectroscopy.

LRc10 will start on July 8th. The driver is the EB (red giant, Bstar) with a secondary ecclipse on July 20th.

For this run, imagettes will be placed on the brighter dwarfs, non saturated or very lightly saturated. If possible the barycentre process will be tested.

5.2. Winter runs

The seismo priority is to observe O stars for a long period. EM presents the propositions of the seismology group. The best field is close to SRa02 (see SC44-DR11a-EM.pdf)..

The exoplanet team expresses some concern about the fact that it will mean many targets being reobserved. The possibility to have two fields through a Daniel's rotation, overlapping only slightly SRa02 exo CCDs has to be documented. And a final decision taken by the SC board before the end of July, as in this region htere is presently only the USNO catalogue in CoRoTsky.

Action SC44-6: Precise definition of the next winter pointings; AB, EC board, end of july.

6. CoRoT III

The preliminary observing programme has been accepted by the French Astronomy Working group, after complements, and clarifications.

EM recalls the different priorities (see SC44-DR11b-EM.pdf).

KZ presents a very preliminary projet of a new multisat campaign on NGC 2264. (SC44-DR12-KZ.pdf). Some members feel that it is evidently too early..

7. Open Actions and new ones

SC28-4	Document on corrections	SC, MA. AB	Dec 2008
SC41-3	Discussion at CEST on the publication policy	MD	Next CEST
SC41-4	Update the list of builders, CO-Is, SC members	AB	Next SC
SC42-4:	Propose the pointing(s) of next winter		next SC.
SC42-5:	present improvements and modification of the webpage,	Pascal B. Fréderic B.	next SC.
SC42-6	Organisation of the CW next fall	AB	Next SC
SC43-2	Upgrade of the web page + Wikipedia	PB, FB	Next SC



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SC43-3	Barycentre computation	MO	next SC.
SC43-4	Organization of the CW next winter	RA	Next SC
SC44-1	Send contact person for the Steering Committee	All foreign members	asap
SC44-2	Propose an improvement of the Wikipedia paper	AN	asap
SC44-3	Built a new instrument team and organise a first meeting	MO	Early fall
SC44-4	Organize the test of the different methods for contaminants detection,	МО	asap
SC44-5	Define and implement a new correction of the BKG	MO, SC, MA	asap
SC 44-6	Precise definition of the next winter pointings	AB, SC board	end of july