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	<b>Minutes of the 39th Scientific Committee</b> Author: Annie BAGLIN	<b>COROT.LESIA.11.003</b> <b>Version: 1</b> Date: 1/ 07 /2011

## Minutes of the 39th Scientific Committee

Held at Observatoire de Paris, salle Danjon, on April 29<sup>th</sup>, 2011

<b>Prepared by:</b>	<b>Annie Baglin</b>	
<b>Accepted by:</b>	<b>The SC members</b>	

### MODIFICATIONS OF THE DOCUMENT

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

Reference	Title of the document
SC39-DR1-OV.pdf	Mission status
SC39-DR2a-EM.pdf	Recent results in seismology
SC39-DR2b-MD.pdf	Exoplanet program: status
SC38-DR3-JS.pdf	Naming the following CoRoT planet discoveries
SC38-DR4-SCMAJYC.pdf	Status of the treatments
SC39-DR5-CM.pdf	Fields of the anticentre
SC38-DR6-FB.pdf	Population of the summer eye
SC39-DR7-EM.pdf	The seismology programme

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DIFFUSION:

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

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### **Participants:**

All members except G. Vauclair, E. Janot , T. Guillot, M. Fridlund, C. Moutou, A. Noels

## **1. Mission status**

Olivier V. presents the status of the mission (see SC39-DR1-OV).

The satellite and the instrument (with only chain 2!) are working very well. 17 runs have been achieved.

A constant attention is paid to the TM download.

There are still some losses, mostly at Alcantara.

The Vienna station starts to acquire data.

A bright illumination of the whole field has been seen, lasting 30s and seems to be due to a small quite close object.

There are still seasonal anomalies, under study by ALCATEL.

LRa05 has lasted 95 days.

The time available before the pointing of LRC07, has allowed to perform some technical experiments, concerning essentially straylight and PSF aging.

And the field of CoRoT-9 has been pointed to acquire full images and to prepare the programming in advance and save time during the interruption!

LRc07 has started in early April.

## **2. Recent results, papers in preparation**

### **2.1. The Seismology Programme**

EM gives some hints on the papers being published recently (see SC39-DR2-EM.pdf).

### **2.2. The Exoplanet Programme**

MD presents the status of the planet discoveries and the publications

There are 4 new papers on discoveries. The run reports (not very funny) are progressing.

One of the referees questions the field-by-field basis. As each pointing is lasting for a few months, it seems however impossible to wait till the end of the mission to publish the candidates, especially as these papers include results from follow-up observations. However, the process is still too long. They will be several discoveries announced at the Symposium.

Tristan G proposes to reexamine the candidates of lower confidence level

### **2.3. The Additional Programmes**

WW stresses the results on the V Mon stars of NGC 2264, which are delta scuti stars, observed first by MOST and then by CoRoT on SRa01.

He also mentioned a very interesting paper by Paparo et al. on deciphering contamination by a variable star.

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More and more people are using the archives. But there is also some diversion due to the release of the Kepler data.

More generally, it seems important that we speed up the publications of the data, to allow for the first steps of the interpretation, where CoRoT has some advantage as it has been started earlier.

#### **2.4. Upgrade of the Scientific Results web page**

At SC 37 it has been decided (see action 37-2) to upgrade the web page on scientific results every two months.

Last one was done around janauary. It is now time to do it!

**Action SC 39-1:** AB: Upgrade the webpage on Scientific results ASAP

### **3. Publication policy**

#### **3.1. Relations with A and A**

After some remarks by a referee of A&A on the CoRoT policy (have a paper by planet discovery and confirmation) , AB contacted Claude Bertout.

A&A proposes to accept the papers in preparation and then the situation will be re-evaluated.

The general feeling is that we should keep our policy as defined before . In some cases a paper could describe several discoveries, if the planets do not present any strong peculiarity; otherwise the paper could contain a unique discovery.

It is also stated that we can try other journals like MNRAS (already done) or ApJ.

#### **3.2. Difficulties with the RR Lyr team**

There has been a conflict between two groups within the RR Lyr Thematic Subteam centered around Chadid and Kolenberg. As a consequence, it was proposed by W.W. to reorganise the RR Lyrae team and merge it with the HAD team, with Ennio Poretti as team coordinator. The SC accepts this proposal.

#### **3.3. Naming the CoRoT discoveries**

JS proposes (see SC39-DR3-JS.pdf) strict rules for naming the discoveries, in particular done by scientists outside the CEST group.

It is decided that planets discovered by teams outside CEST should be named following the same rule as those discovered by the CEST. The number would have just to be adapted to the CEST discoveries at the time of the publication.

It is also proposed that, as Kepler does, CoRoT candidates could be named before confirmation of their planetary nature.

It is decided to name them by CoRoT\_run number\_window number e.g.

***CoRoT\_LRc06-E2-157.***

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JS asks that this decision be clearly stated at the Symposium

## 4. Data treatments and deliveries

### 4.1. Proposition of modifications (See SC39-DR4-MASCJYC.pdf)

\*The status of the evolution of the pipe-line of corrections is presented by MA.

It concerns essentially the jitter correction improvement taking into account the relativistic aberration, and the temperature corrections.

A planning of the implementation of these corrections is presented by Sylviane C.

Imagettes pipe-line will be improved by the Marseille group, in particular on the treatment of saturated stars.

\* Sylviane C. presents the table of the deliveries of the different versions and of the recent run.

She insists on the lack of manpower in the group, for the implementation of the temperature correction for instance.

Concerning the planning of the reprocessing, the SC proposes to reprocess first the most recent runs.

\* Artie H responsible for action SC 37-3 says that Ofir has not been able to work on his proposition as he is preparing the defense of his thesis ; action reconducted.

### 4.2. Deliveries, archive evolution

FB presents the update of the queries of the Mission archive, which are still quite high (see SC39-DR5-FB.pdf) .

He presents the last developments already installed

- visualisation of the light curves
- VO format
- Link with EXODAT
- Collaboration with NStED on periodograms

He also says that recently the group experienced a strong lack of manpower as an engineer left the team. A new engineer is being hired, and may solve the problem, but one has to keep posted on this difficulty.

### 4.3. Long Term Archive

OV presents some ideas

It is recalled that CDS has taken this responsibility at least for the light curves

The need for archiving N1 is discussed

It is also recalled that among there is a recommendation of the review of CDC on that subject. A meeting should be organised to prepare a preliminary work plan.

**Action SC39-2 : AB : Before the next SC, organise a meeting to prepare a preliminary work**

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plan.

## **5. Observing programme**

### **5.1. Exoplanet preferred fields in the anti centre direction**

Claire M, who is observing in Chile, sent some indications about the relation between stellar density and planet discoveries in the anticenter direction, as presented by MD (see SC39-DR6-CM.pdf). These data qualify the fields around some possible seismology targets.

There has been also a strong interest on reobserving CoRoT 7

A new proposal for an HARPS campaign next winter has been submitted (25 nights with 3 measurements per night). Depending on the time allocation, one of the winter pointing of CoRoT could be dedicated to CoRoT-7.

### **5.2. Seismology priorities in the anti centre**

Eric M. proposes to follow the priorities proposed before (see SC39-DR7-EM.pdf)

Among the possible Hg Mn stars which concern only winter sessions, HD 46886 remains the best one, HD 45975 a second priority and the last one 46375 has a very poor field.

The other priority is O stars. The possibility to observe an O star for a whole winter is discussed.

### **5.3. NGC 2264**

At SC 38 it has been proposed to reobserve the cluster for 2 months, if Spitzer time is allocated. We got the positive answer just after the SC, and Spitzer proposes to observe it from December 3 to January 1<sup>st</sup>.

It seems possible to have also Chandra observations during the same period, as well as MOST for the brighter stars.

### **5.4. Planning of the winter period**

A final decision has to be taken soon, after the ESO answer. It will be done by mail.

### **5.5. Extension of the observations after 2013 ?**

The SC expresses his unanimous interest to extend the life of CoRoT. Artie H. says that CoRoT is a very fruitful space facility and that there are very few such facilities. It is also said that operations are quite cheap, at least much cheaper than another mission!.

Many “niches” are identified as , young and massive stars, young stellar regions, young clusters, reobservation of some targets for stellar cycle, TTV for planetary systems etc...

The capacity of CoRoT to look at 2 different directions in the galaxy is also stressed.

The possibility to reobserve objects and give access to more than 6 years time base comparison is also an asset.

It seems that the recent evaluation of the level of straylight would allow to extend the size of

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the eyes, giving access to new regions.

## 6. Preparation of CoRoT symposium in Marseille

MD presents the programme and the final organisation

Ian presents the proposal of ASpS for the proceedings

It is proposed to have 5 guest editors: Eric, Magali, Claire, Werner, Annie, Ian....

The spin-off volume is discussed.

Though some of us stress the importance of having a written document showing the science that has been what has been performed presented during the symposium, it is also said that publishing new bright results in ApSS is not very appealing.

No decision has been taken and is postponed to the symposium.

## 7. General management

### 7.1. SC members

Claude Catala, recently elected as Président of Paris Observatory, resign. It is decided not to replace him presently

### 7.2. Co-Is

MD proposes to replace A. Llebaria, who is retired, by A. Bonomo : accepted

### 7.3. Next SC meeting.

Due to the conference in June it is decided to postpone the next SC at the end of september  
 AB organises a Doodle

## 8. Actions

### 8.1. From this SC

SC39-1	Upgrade the webpage on Scientific results	AB	Asap,	
SC39-2	organise a meeting to prepare a preliminary work plan for the LTA	AB	Before next SC	

### 8.2. Actions still open

SC37-1	Document the imagerie photometry accuracy	PB	Asap, next SC	
SC39-3	Contact A. Ofir for a more elaborated document	Artie H.	Next SC	
SC28-4	Document on corrections	SC, MA. AB	Dec 2008	
SC36-3	Contact R. Garcia and propose a programme for the users meeting	PB	Next SC	