

## COMMISSION 53

**PRESIDENT**  
**VICE-PRESIDENT**  
**PAST PRESIDENT**  
**ORGANIZING COMMITTEE**

## EXTRA-SOLAR PLANETS

*(Extra-Solar Planets)*

**Alan Boss**  
**Alain Lecavelier des Etangs**  
**Michel Mayor**  
**Peter Bodenheimer,**  
**Andrew Collier-Cameron,**  
**Eiichiro Kokubo,**  
**Rosemary Mardling,**  
**Dante Minniti,**  
**Didier Queloz**

## PROCEEDINGS BUSINESS SESSIONS, 12 August 2009

### 1. Introduction

Commission 53 met in August 12, 2009. Outgoing President Michel Mayor chaired the meeting, and there were several dozen members present, including incoming President Alan Boss, incoming Vice President Alain Lecavelier des Etangs. Commission 53 (C53) was founded at the 2006 Prague General Assembly of the IAU. After a period of 6 years, C53 will come up for renewal at the 2012 IAU General Assembly in Beijing, China. For the moment, more than 150 IAU members have asked to be members of C53 and few dozen non-IAU members having asked to be informed of the commission activity.

### 2. Organizing Committee

The 2006-2009 C53 organizing Committee (OC) had 13 members, all of them being previously members of the IAU Working Group for Extra-Solar Planets (WGESP). The new OC includes 9 members of which only the President and past-president were members of the last triennium OC. The new OC has members with quite diverse competences and a broad geographical distribution.

### 3. Meetings

Meetings focussed on extra-solar planets are still extremely frequent, covering all of the aspects of that new chapter of astrophysics, from new instrumentation, detections, characterisation and theory. On the last triennium two IAU symposia have been devoted to extra-solar planetary systems. From October 22nd to 26th 2007 in Suzhou, the IAU Symp. 249, "Exoplanets: Detection, Formation and Dynamics" and from May 19th to 23rd 2008 the IAU Symposium 253, "Transiting Planets". Both conferences were attended by more than 200 participants.

At the IAU General Assembly in Rio de Janeiro, the SpS6 "Planetary Systems as Potential Sites for Life", co-organised by commissions 16, 51 and 53. The very large attendance to this special session has proven again the interest of the astronomical community for this cross-disciplinary topic.

#### 4. Summary of discussions

Three topics have been discussed during the meeting :

- Definition of exoplanets and the upper limit for their mass. The present definition of extra-solar planets has been established by the IAU working group WGESP. It will be the responsibility of the C53 to rediscuss that definition .

- Nomenclature of extrasolar-planets. The present rule for the nomenclature of extrasolar planets is simply to use the name of the star followed by a lower case letter given in the order of discovery, in case of multiplanetary systems, starting from “b”. Examples: 51 Peg b, 55 CnC b, 55 CnC c, 55 CnC d ,...CoRoT-7 b, CoRoT-7 c ,... The discussion was focused on the possibility to add some specific names to exoplanets as it is the rule for asteroids. It was decided to let the Organising Committee of C53 to clarify that question of nomenclature having in mind the present very high rate of exoplanet discoveries.

- List of Exoplanets.

Michel Mayor  
*President of the Commission*