

Introduction to the 2016 WP120 meeting

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Observatoire de Paris, France

1) Update about Plato status

2) Objectives of the meeting

Thanks to

SOC : K. Belkacem, M. Cunha, N. Lanza, T. Morel, R. Samadi (chairs)

LOC : C. Barban, G. Bessou, K. Belkacem, C. Imad, E. Michel, R. Ouazzani, R. Samadi

our host Observatoire de Paris

CNES for financial support

Update about PLATO status

- **PSRR** (Payload, Science Ground Segment and Science Performance System Requirements Review) from Sept. 2015 to May 2016

Pb : Mass and energy too high for a launch with Soyuz

Recommandation : baseline number of Normal-cameras from 32 to 28

→ 15 000 stars instead of 20 000 stars (core program P1)

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- **IPDR** (Instrument P. Definition Review) (June – August 2017)

End phase B2- Beginning of phase C : implementation tests = validate intermediate software prototype

Documents for Adoption

❖ Red book (definition phase report) :

- First draft: 15 May
- Second draft: 15 June
- Third draft: 15 July
- Draft ready for ESA internal review: 9 September
- **Release to Advisory structure: 22 September**
- AWG/SSEWG meetings: 13/14 October
- SPC meeting: 22/23 November

The basis for the science objectives chapter is the PLATO paper published in Experimental Astronomy.

Action : The sections on stellar science must be extended compare to the yellow book

❖ Performance report :

Action : Estimate accuracy/precision of stellar parameters : 32 tel → 28, 24 , 20 tel

Data processing requirement (end 2016)

Doc specifying data processing requirements L1 → L2 (**NEW!**)-

L2 : output DP2-DP6

For WP120, data processing requirements* for

- applying correction for stellar activity for exoplanet search
- stellar mode determination
- stellar parameter determination

*data processing requirements = 'Philosophy' of the algorithms

Objectives of the meeting

WP120 is responsible for providing the description of the pipelines which will produce the stellar parameters and other properties of the stars of the core programme.

Several scientific issues are still to be settled in order to provide a first draft describing the various pipelines to ESA and then to the PDC.

The meeting focuses on four of these issues :

- **Stellar activity**
- **Seismology of main sequence stars : model -dependent determination**
- **Surface convection**
- **Benchmark stars for PLATO**

Exemples of issues

- **Stellar activity**
What do exoplanet colleagues need?
Are our models of stellar activity good enough ?
- **Seismology of main sequence stars : model -dependent determination**
Several issues to be settled
Estimation of **reliable** uncertainties
- **Surface convection**
Are our models of stellar activity sufficiently good enough ?
- **Benchmark stars for PLATO**
Definiton and criteria ?

Discussions must end up with a list of **actions** (chair's responsibility)

These actions will be summarized at the end of the meeting (K. Belkacem)

END

A. Heras reminded of the possibility to organise a general PLATO Conference next year. For obvious reasons this meeting may only be announced after mission adoption. The PLATO-SAT agreed to target autumn 2017 for this Conference, which is also convenient because the Industrial prime contractor would have been selected by then.

PLATO presentation that Ana gave to the AWG today. She reported "only" on the status after the PSRR, that means not talking about the MAR report and the 24 telescope issue.