PLATO GOP Workshop 2022

17-19 October 2022

Geneva, Switzerland

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Program (CEST times)

DAY 1 - Monday 17/10

Lunch 12h45 – 13h55

GENERALITIES

— Session 1: Monday 17/10, 13h55 – 15h30 (5’ + 4x[15’+5’] + 10’)

Information and landscape, chair: Don Pollacco

Intro [**Stéphane Udry 5’**]

1. Mission status [**Heike Rauer**]
2. GOP status [**Stéphane Udry**]
3. Tool to optimise observations [**Ignasi Ribas**]
4. Experience from TESS/TFOP [Sam Quinn]

Coffee break 15h30 – 16h00

EXOPLANETS

— Session 2: Monday 17/10, 16h00 – 17h30 (4x[15’+5’] + 10’)

Radial Velocity instruments, requirements and operations, chair: Alexandre Santerne

1. RV instrument requirements, Benchmark and foreseen operation & coordination [**François Bouchy**]
2. Recent development in RV technics + new instruments [**Francesco Pepe**]
3. Existing facilities + Recon spectroscopy [**Eike Günther**]
4. Combining TTVs and RV for mass determination [Dan Fabrycky]

DAY 2 - Tuesday 18/10

— Session 3: Tuesday 18/10, 9h00 – 10h30 (4x[15'+5'] + 10')

Radial velocity extraction & analysis

1. Small-planets at long period : A test case for PLATO, HIP 41378 [**Alexandre Santerne**]
2. Lessons learned from RV FU of long-period Kepler and TESS small-size candidates [**Nolan Grieves**]
3. Modelling or mitigating stellar noise [**Luca Malavolta**]
4. Recent development in RV Extraction and analysis **[Xavier Dumusque]**

Coffee break 10h30 – 11h00

— Session 4: Tuesday 18/10, 11h00 – 12h30 (4x[15'+5'] + 10')

Vetting I: Time critical photometry

1. Strategy, needs, deliverables [**Roi Alonso**]
2. Benefits of photometric follow up: when is it useful, and what do we need? [Hans Deeg]
3. Operating the Muscat2 transit follow-up program: an example of TESS follow-up [Enric Pallé]
4. Citizen science [Günther Wuchterl]

Lunch 12h45 – 14h00

— Session 5: Tuesday 18/10, 14h00 – 15h30 (4x[15'+5'] + 10')

Vetting II: Imaging (needs, science and outputs)

1. Need for imaging follow-up in the Gaia era [Markus Janson]
2. Community tools for imaging archive data: SPHERE-DC and DIVA [Philippe Delorme]
3. Science with imaging vetting data [Mariangela Bonavita]
4. TOI-179: a test case of a transiting system characterised through high contrast imaging [Silvano Desidera]

Coffee break 15h30 – 16h00

— Session 6: Tuesday 18/10, 16h00 – 17h30 (4x[15'+5'] + 10')

Non-standard cases, science enhancement and implications for GOP activities

1. Mono-transit and plan for complementary ground-based observations (implications for obs. strategy) [Paul Strøm]
2. Use of dynamical knowledge to improve follow-up efficiency [**Adrien Leleu**]
3. Exo-comets [Alain Lecavelier des Etangs]
4. Circumbinary planets [Amaury Triaud]

DAY 3 - Wednesday 19/10 (updated draft schedule)

SYNERGIES WITH OTHER SPACE MISSIONS

— Session 7: Wednesday 19/10, 9h00 – 10h15 (5' + 3x[15'+5'] + 10')

Role of the GOP in enhancing synergies with other space missions

Intro **[Monika Lendl *5'*]**

a. PLATO-CHEOPS [**David Ehrenreich**]
b. PLATO-ARIEL [**Isabella Pagano**]
c. PLATO-Gaia [Tsevi Mazeh]

Coffee break 10h15 – 11h00

STELLAR SCIENCE

— Session 8: Wednesday 19/10, 11h00 – 12h30 (4x[15'+5'] + 10')

Stellar parameter determination (with and without asteroseismology)

1. "Systematic" limitations of estimates from high-resolution spectra [Thierry Morel]
2. Stellar activity, rotation, ages [Antonio Lanza]
3. Chemical abundances [Morgan Deal]
4. Calibrators [Nikki Miller]

Lunch 12h45 – 14h00

— Session 9: Wednesday 19/10, 14h00 – 15h30 (4x[15'+5'] + 10')

1. Interferometric radius measurements [**Denis Mourard**]
2. Importance of polarimetry [**Pascal Petit**]
3. Multi-object spectroscopy [Maria Bergemann]
4. Complementary topics on stellar science [Andrew Tkachenko]

Coffee break 15h30 – 16h00

— Session 10: Wednesday 19/10, 16h00 – 17h00

General closing discussion

- *Main challenges we are facing*
- *Enhancement of scientific return (non-core exoplanet science)*
- *Non-prime sample science*
- *Broader involvement of the community*
- *Others*

End of Workshop – 17h00