PLATO STESCI Workshop III

Tuesday 19 November 2019 - Friday 22 November 2019

Barcelona, Spain

Scientific Programme

Check timetable (detailed view) for detailed schedule

Session 1: Update about the PLATO mission - M.-Jo Goupil & R. Ouazzani

Mission Status: the ESA perspective (A. Heras)

Mission Status: PSM preparation and deadlines (D. Brown)

The PLATO Input Catalog (G. P. Piotto)

The PLATO preparatory and follow-up database (M. Delleiul - TBC)

The ground-based follow-up program (S. Udry)

Requirements on data analysis support tools (P. Gaulme)

Session 2: Preparation and analysis of PLATO lightcurves - W. Chaplin & N. Lanza

Session 2a: Analysis-ready lightcurves

Lightcurve preparation for asteroseismic analysis (A. Moya/R. Garcia)

Preparation of lightcurves for rotation and activity analysis (A. F. Lanza)

Discussion

Session 2b: Extraction of seismic parameters

WP128 Community data analysis exercises (M. Bo Nielsen)

Overview of pipeline for extracting seismic parameters (G. Davies)

Discussion

Session 2c: Stellar rotation and activity measurements

HH exercises on rotation measurements: methods and results (S. Messina/A. F. Lanza)

Overview of the pipeline for rotation and activity measurements (F. Baudin)

Discussion

Session 3: Stellar models and their pulsation grid - A. Serenelli & J.C. Suarez

Results from tests on stellar physics uncertainties (J. Montalban)

Description of stellar models grid v1.0 (A. Serenelli)

Parameters for synthetic pulsation spectra (J. C. Suarez)

Discussion

Session 4: Model atmospheres and determination of classical parameters - T. Morel & B. Plez

1D model atmospheres (B. Edvardsson)

3D model atmospheres (L. Bigot)

Limb darkening (P. Maxted)

Overview of pipeline for determination of classical parameters (M. Bergemann)

Results of spectroscopic H&H (C. del Burgo)

Interferometry and surface-brightness colour relations (D. Mourard)

Infrared flux method (L. Casagrande, remotely)

Discussion

Session 5: Seismic inferences - M. Cunha & D. Reese

Inferring stellar properties of subgiant stars: results from an H&H exercise (S. Deheuvels)

Seismic inferences on main-sequence stars: results from a H&H exercise (I. Roxburgh)

Asteroseismic measurements of stellar rotation and asphericity (L. Gizon)

Discussion

Session 6: Benchmark stars, calibration stars - O. Creevey & P. Maxted (TBC)

WP125500 remit and progress (O. Creevey)

Eclipsing binaries in PLATO SPF from TESS (P. Maxted)

Fundamental effective temperature from EBs (N. Miller)

Interferometric observations of benchmark stars (A. Salsi)

Ages for Gaia benchmark stars (S. Feltzing)

Spectroscopic orbits for astrometric binaries from Gaia (F. Kiefer)

Fundamental parameters for M dwarfs (T. Olander)

Towards an optimal set of calibration stars for PLATO (C. Aerts)

Discussion

Session 7: Stellar rotation and activity - A. Lanza & F. Baudin

Recent advances in the physics of sunspots and starspots (S. Solanki)

Models for angular momentum evolution of late-type stars (F. Gallet)

HD and MHD models of angular momentum transport and differential rotation (A. Strugarek)

Surface convection models (F. Kupka / H.-G. Ludwig)

Recent advances in spot modeling (N. Meunier)

Stellar flares in photometric time-series data (B. Stelzer)

Discussion

Session 8: Final data output (mass, radius, age) to be delivered - J. Christensen Dalsgaard & A. Miglio

Selection and verification of non-seismic data (S. Feltzing)

Selection and verification of seismic data (Ch. Karoff)

Selection and verification of the final results: mass, radius, age and chemical composition (R. Angus)

Session 9: Surface effects - J. Ballot & R. Samadi

Using patched models (Andreas Jørgensen)

The amplitude of solar p-mode oscillations from 3D convection simulations (Yixiao Zhou)

Time-dependent convection models (Gunter Houdek)

A variational approach for near surface effect correction (L. Bigot)

Near-surface effect correction for PLATO (R. Samadi/J. Ballot)

Discussion