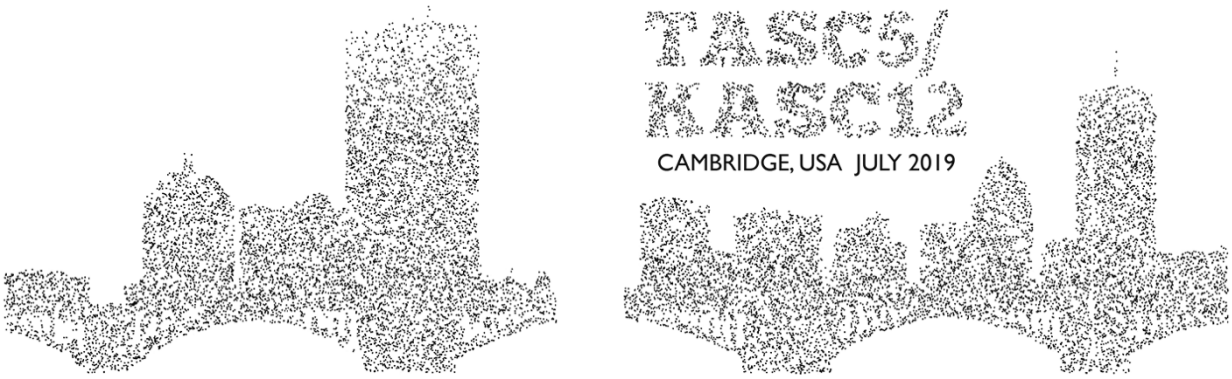

TASC5/KASC12 program, MIT, Cambridge, MA, USA:
As of 29 May 2019

Sunday, 21 July 2019

17:30-20:30 Welcome Reception and Registration, Ting Foyer, MIT

Monday, 22 July 2019

08:30-09:00 Registration

- *TESS* Mission & Opening

09:00-09:30 George Ricker (MIT): Searching Near and Far: Transits and Transients from *TESS* (Invited)

09:30-09:45 Jon M. Jenkins (NASA Ames): *TESS* Science Processing Operations Center Pipeline and Data Products

09:45-10:10 Clara Brasseur (STScI): Accessing *TESS* Data Programmatically: A MAST case study (Invited Software Demo)

10:10-10:45 COFFEE BREAK

- Early *TESS* observations

10:45-11:15 Dan Huber (Hawaii): Solar-Like Oscillators with *TESS*: First Results (Invited)

11:15-11:30 Marc Hon (UNSW): First results of the solar-like oscillator yield from *TESS* Full Frame Images

11:30-11:45 Timothy R. White (ANU): The brightest stars observed by *TESS*

11:45-12:00 Warrick H. Ball (Birmingham): What sort of variable is HR2562?

12:00-13:30 LUNCH at local restaurants

13:30-14:00 Earl Bellinger (Aarhus): Experimental tests of stellar pulsation and evolution with *TESS* and SONG (Invited)

- Evolutionary Diagnostics

14:00-14:15 Joel Ong (Yale): Structural and Evolutionary Diagnostics from Asteroseismic Phases

Monday, 22 July 2019, cont.

14:15-14:30 James S. Kuszlewicz (Max Planck Institute): Clumpiness: Time-domain classification of Kepler red giant evolutionary states

14:30-15:00 Poster Sparklers I

15:00-15:30 COFFEE BREAK

- Binary Benchmarks

15:30-15:45 Daniel R. Hey (Sydney): Forward modelling of pulsating star in binaries

15:45-16:00 Jean McKeever (Yale): Comparison between asteroseismic and dynamical masses of a sample of red giants

16:00-16:15 Nathalie Themeßl (Max Planck Institute): Is it time to retire the Sun as the reference star for determining red giant stellar parameters

16:15-16:30 Sanjay Sekaran (KU Leuven): An eclipse to build a dream on: Detecting g-mode period spacing patterns in eclipsing binaries with pulsating components

- Interactive Software Demo

16:30-16:55 Andrew Tkachenko (KU Leuven): TESS Data for Asteroseismology (TD'A): a machinery for data processing and variability classification (Invited Software Demo)

19:00-22:00 Young Astronomer's Mixer

Tuesday, 23 July 2019

- Intermediate-Mass Stars

08:30-09:00 Don Kurtz (UCLan): Results and prospects for the *TESS* main mission studies of main-sequence A to mid-F stars (Invited)

09:00-09:15 Vichi Antoci (Aarhus): The zoo of delta Sct and gamma Dor stars observed with *TESS*

09:15-09:30 Filiz Kahraman Alicavus (Nicolaus Copernicus, Warsaw): Unexpected presence of hot Gamma Doradus and A-F type hybrid pulsators

09:30-09:45 Juan Carlos Suárez (Granada): Estimating large separation and rotational splittings of delta Scuti stars with neural networks

09:45-10:00 Antonio García Hernández (Granada): The period-luminosity-color diagram: identifying the fundamental radial mode in A/F stars with *Kepler* and *Gaia*

10:05-10:45 COFFEE BREAK

10:45-11:15 Tim Bedding (Sydney): High-frequency delta Scuti stars with *TESS* (Invited)

11:15-11:30 Gang Li (Sydney): Gravity and Rossby modes in 600 *Kepler* gamma Doradus stars

11:30-11:45 Joey S. G. Mombarg (KU Leuven): Improving stellar evolution models with atomic diffusion from asteroseismology of intermediate-mass stars

11:45-12:00 Kuldeep Verma (Aarhus): Helium settling in F stars: Constraining turbulent mixing using observed signature of helium ionization

12:00-13:30 LUNCH at local restaurants

- Tides

13:30-13:45 Zhao Guo (Penn State): Tidal Asteroseismology: Opportunities and Challenges

13:45-14:00 P. G. Beck (Universität Graz): Testing tidal theory for evolved stars from red-giant binaries observed by *Kepler*

14:00-14:15 Cole Johnston (KU Leuven): High tide as seen by *TESS*: What *TESS* can do for tidal asteroseismology and pulsating binaries

- Massive Stars

14:15-14:45 May Pedersen (KU Leuven): What *TESS* can do for massive stars (Invited)

14:45-15:00 Dominic M. Bowman (KU Leuven): Low-frequency gravity waves in blue supergiants revealed by high-precision *K2* and *TESS* photometry

Tuesday, 23 July 2019, cont.

15:00-15:30 COFFEE

15:30-15:45 Derek Buzasi (FGCU): Multi-Epoch Asteroseismology: A Window Into Evolution of Massive Stars

15:45-16:00 Tao Wu (Yunnan Obs.): A New C-D-like Diagram and the Evolution of SPB Stars

16:00-16:15 Lucas Viani (Yale): Testing Convective Overshoot Using Asteroseismology

- Interactive Software Demos

16:15-16:40 Jessie Dotson (NASA Ames): The lightkurve package for *Kepler* & *TESS* data (Invited Software Demo)

16:40-17:05 Oliver Hall (Birmingham): Accessible asteroseismology with lightkurve (Invited Software Demo)

Wednesday, 24 July 2019

- Stellar Activity

08:30-09:00 Rachael Roettenbacher (Yale): Continuing the Stellar Activity Revolution with Space-Based Photometry (Invited)

09:00-09:15 Ângela R. G. Santos (SSI): Surface rotation, photometric activity, and active region lifetimes for *Kepler* targets

09:15-09:30 Alexandra E. L. Thomas (Birmingham): Asteroseismic constraints on active latitudes of solar-type stars

09:30-09:45 Lionel Bigot (Côte d'Azur): Stellar cycle effects on acoustic mode frequencies

09:45-10:00 Savita Mathur (IAC): Where are the modes? Studying the non detection of acoustic modes in solar-like stars observed by *Kepler*

10:00-10:45 COFFEE

- Compact Pulsators

10:45-11:15 Stéphane Charpinet (IRAP Toulouse): First steps toward TESSting ultimate stages of stellar evolution (Invited)

11:15-11:30 M. H. Montgomery (UT Austin): The effect of a variable convection zone on coherence and damping of modes in pulsating white dwarfs

11:30-11:45 Weikai Zong (Beijing Normal): Spaceborne photometry revolution: oscillation mode variability in pulsating hot B subdwarfs and white dwarfs

11:45-12:00 Zach Vanderbosch (UT Austin): Observing Outbursting White Dwarfs in the post-*Kepler* Era

12:00- LUNCH

FREE AFTERNOON

Thursday, 25 July 2019

- Galactic Archaeology

08:30-09:00 Cristina Chiappini (AIP, Potsdam): Asteroseismology with *CoRoT*, *Kepler*, *K2* and *TESS*: Impact on Galactic Archaeology (Invited)

09:00-09:15 Dennis Stello (UNSW): Galactic archaeology with *TESS* and *K2*

09:15-09:30 Ditte Slumstrup (Aarhus): The origin of the young alpha-rich stars: The view from *Kepler*, *K2* and *CoRoT*

09:30-10:00 Poster Sparklers II

10:00-10:45 COFFEE

10:45-11:00 Marc H. Pinsonneault (Ohio State): Precision Stellar Astrophysics: Testing Asteroseismic Radii with Gaia and Understanding the Differences

11:00-11:15 Samuel Grunblatt (Hawaii): Definitive Effective Temperature and Radius Scales for Asteroseismic Red Giants

11:15-11:30 Tanda Li (Sydney): Good ages in subgiants determined by the asteroseismic modelling

11:30-12:00 Katrien Kolenberg (KU Leuven): The wonderful world of classical pulsators, seen by *TESS* (Invited)

12:00-13:30 LUNCH at local restaurants

- Rotation

13:30-14:00 Jamie Tayar (Hawaii): The Evolution of Stellar Rotation (Invited)

14:00-14:15 Sébastien Deheuvels (CNRS Toulouse): Seismic inference on the radial rotation profile within the envelopes of subgiants and red giants

14:15-14:30 Timothy Van Reeth (KU Leuven): Measuring differential rotation and magnetic fields in A/F-type stars with gravity-mode pulsations

14:30-14:45 Steven Christophe (LESIA Paris Obs.): The rotation profile of gamma Dor stars: inference from Rossby modes

14:45-15:00 Andres Moya (Birmingham): Asteroseismology and machine learning for stellar aging using gyrochronology

15:00-15:30 COFFEE

Thursday, 25 July 2019, cont.

- Maximizing the Data

15:30-15:45 Keaton J. Bell (Max Planck Institute): Fully automated solar-like oscillation detections with the coefficient of variation method

15:45-16:00 Javier Pascual-Granado (Granada): Extraction of pulsation frequencies: separating the wheat from the chaff with fractal analysis

16:00-16:15 Enrico Corsaro (Cantania): FAMED: A new pipeline for fast and automated peak bagging of stellar oscillations. Application to *Kepler* and *TESS* GI proposal stars

16:15-16:30 Guy R. Davies (Birmingham): PBjam: The Open Source Peak Bagging Tool

16:30-16:55 Dan Foreman-Mackey (Flatiron): Gaussian Processes for time series analysis (Invited Software Demo)

19:00-22:00 Conference Dinner, Samberg Center, MIT

Friday, 26 July 2019

- 3D Models

09:00-09:15 Andreas Christ Sølvsten Jørgensen (MPIA): Improving 1D stellar evolution codes using 3D simulations of stellar envelopes

09:15-09:30 Yixiao Zhou (ANU): Asteroseismology of Solar-type Stars with 3D Hydrodynamical Stellar Modelling

- Interactive Software Demos

09:30-09:55 Adina Feinstein (Chicago): Using eleanor, an open-source Python package, to extract light curves from the *TESS* Full-Frame Images (Invited Software Demo)

09:55-10:20 Andras Pal (Konkoly): Accurate methods for differential image analysis on *TESS* FFIs (Invited Software Demo)

10:20-10:45 COFFEE

- Finding and Exploring Red Giants

10:45-11:00 Isabel Colman (Sydney): Image subtraction photometry on *Kepler* open clusters

11:00-11:15 Anthony Noll (CNRS Toulouse): Probing the extension of convective cores with subgiants observed by *Kepler* and *TESS*

11:15-11:30 Nevin N. Weinberg (MIT): Nonlinearly damped oscillation modes in red giants

- Asteroseismology of Planet Hosts

11:30-12:00 Vincent Van Eylen (Princeton): Asteroseismology of planet host stars in the *TESS* era (Invited)

12:00-13:30 LUNCH at local restaurants

13:30-13:45 Tiago Campante (Porto): *TESS*'s first asteroseismic known hosts

13:45-14:00 Ashley Chontos (Hawaii): A Systematic Search for Asteroseismic Host Stars in *Kepler*, *K2*, and *TESS* Data

14:00-14:15 Martin B. Nielsen (Birmingham): *TESS* Asteroseismology of λ^2 Fornacis

14:15-14:30 Charlotte Gehan (LESIA Paris Obs.): Large-scale analysis of red giant inclinations

- Closing

14:30-15:00 Elisa Quintana (NASA Goddard): Time Domain Astronomy in the *TESS* Era (Invited)