Monday, May 20, 2019

**Precision Exoplanets with Asteroseismology, Chair: Daniel Huber (U Hawaii)**

- 8:50am Mark Bowick (KITP)  
  Welcome
- 9:00am Vincent Van Eylen (Princeton)  
  What asteroseismology can do for exoplanets
- 9:30am Angela Santos (STScI)  
  Seismic signatures of magnetic activity in solar-type stars
- 10:00am J. Christensen-Dalsgaard (Aarhus)  
  Stellar modeling and asteroseismology

**Morning Break**

- 10:30am Morning Break

**Close-in Planetary Radii, Chair: Diana Dragomir (MIT)**

- 11:00am Angie Wolfgang (Penn State)  
  Data-driven planetary radii
- 11:30am Travis Berger (U of Hawaii)  
  Precise Characterization of Kepler Stars and Planets Using Gaia DR2
- 11:45am James Owen (Imperial)  
  Sculpting planet radii with atmospheric escape

**Lunch Break**

- 12:15pm Lunch Break

**Cool Dwarf Seismology, Chair: Daniel Huber (U Hawaii)**

- 1:45pm Hans Kjeldsen (Aarhus)  
  Low SNR detections of p-modes: Using asteroseismology to characterize a large number of TESS host stars
- 2:15pm Tim Bedding (U Sydney)  
  The Next Frontiers for Asteroseismology
- 2:45pm Bill Chaplin (U Birmingham)  
  Asteroseismology of planet hosts: summary and future challenges

**Afternoon Break**

- 3:15pm Afternoon Break

- 3:45pm Panel discussion{panel1}  
  Stellar properties, an exoplaneteer's wishlist

**Stellar Characterization and Planetary Implications, Chair: Benjamin Montet (U Chicago)**
Tuesday, May 21, 2019

Stellar Activity and Rotation, Chair: Katja Poppenhaeger (AIP)

9:00am Elisabeth Newton (Dartmouth) The evolution of rotation and magnetic activity in M dwarfs
9:30am Raphaëlle Haywood (Harvard) What can we learn from the Sun?
10:00am Cecilia Garraffo (Harvard) Stellar Spin to Planetary Atmospheres
10:30am Morning Break

11:00am Jennifer van Saders (U Hawaii) The right tool for the job: Understanding the limits and potential of period-age and activity-age relations.
11:30am Ruth Angus (Columbia) Measuring stellar ages from light curves
12:00pm Panel discussion{panel2} Stellar activity: Friend or foe?
12:30pm Lunch Break

Orbital Dynamics and Tidal Evolution, Chair: Jack Lissauer (NASA Ames)

2:00pm Smadar Naoz (UCLA) Hidden and apparent companions for multi and lonely planets around hot (or not) stars
2:30pm Dong Lai (Cornell U) Low-e / high-e migration of small/big planets and tidal dissipation
3:00pm Konstantin Batygin (Caltech) Slowing the roll of hyperbolic encounters
3:30pm Afternoon Break

Poster Session, including Lightning/Haiku presentations [list below]

5:30pm RECEPTION-KITP Courtyard
6:00pm SPECIAL EVENTS DINNER-KITP COURTYARD
8:00pm SHUTTLE TO BWSCI

Wednesday, May 22, 2019
Limits to stellar model physics, Chair: Jim Fuller (Caltech)

9:00am Jamie Tayar (U Hawaii)  Current Limitations on Stellar Mass Estimates from Models
9:30am Willie Torres (CfA)  Host Star Properties from Stellar Evolution Models
10:00am Marc Pinsonneault (Ohio State)  Putting A Spin on Stellar Evolution: Rotation, Magnetism, And Activity

10:30am  Morning Break

11:00am Panelists: Tayar, Torres, Pinsonneault, Kawaler  Unfortunate truths about stellar models: Exoplanet beware!

Planet and Stellar Populations, Chair: Angie Wolfgang (Penn State)

Morning Break

11:30am Maxwell Moe (U Arizona)  Impact of Binary Stars on Planet Formation and Statistics
12:00pm Daniel Foreman-Mackey (Flatiron)  Population inference
12:30pm  Announcement—Follow-on Program by Maggie Sherriffs
12:35pm  Lunch Break

FREE AFTERNOON  Shuttle Available to BWSCI

2:00pm  Las Cumbres Observatory Open House  Transportation provided from BWSCI and Munger Residence Hall

Thursday, May 23, 2019

Planet vs. Stellar Properties, Chair: Rebekah Dawson (Penn State)

9:00am Subo Dong (Peking U)  Studying Exoplanet Population and Host Properties with LAMOST
9:30am Ji Wang (Ohio State)  Investigating the effect of metallicity on stellar and planet properties
10:00am Gijs Mulders (U Mulders)  The exoplanet population around stars of different masses

10:30am  Morning Break

11:00am Eve Lee (Caltech)  Stellar Spin, Metallicity, and Planet Formation
11:30am Juliette Becker (Michigan)  Drawing Insights on Past Planetary Migration from Current System State
12:00pm Panelists: Becker, Dong, Lee, Moe, Mulders, Wang  Implications for how planets form and evolve
12:30pm  Lunch Break

Stellar Structure, Chair: Jennifer van Saders (U Hawaii)
2:00pm Greg Feiden (U of North Georgia)  
Magnetic Effects on M-dwarf Evolution

2:30pm Matthew Browning (Exeter)  
Magnetism, rotation, and dissipation in simulations of convective stars and planets

3:00pm Adrian Barker (U of Leeds)  
Tidal dissipation in stars and the orbital decay of hot Jupiters

3:30pm  
Afternoon Break

**Stellar Activity and Characterization, Chair: Elisabeth Newton (MIT)**

4:00pm Ben Montet (U of Chicago)  
The Evolution of Long-Term Stellar Photometric Variability from Kepler Photometry

4:30pm Phillip Muirhead (BU)  
Chemical Ages of M dwarf stars and Magnetic Inflation

5:00pm Dennis Stello (U Sydney)  
Characterizing host stars with SONG and TESS using asteroseismology

5:30pm  
RECEPTION-KITP COURTYARD

6:00pm  
SPECIAL EVENTS DINNER

8:00pm  
SHUTTLE TO BWSCI

**Friday, May 24, 2019**

**The M-dwarf Advantage (?), Chair: Philip Muirhead (BU)**

9:00am Courtney Dressing (UC Berkeley)  
M dwarf planets present and future

9:30am Aomawa Shields (UC Irvine)  
M dwarf habitability and climate feedback

10:00am Adam Burgasser (UCSD)  
The planet brown dwarf connection

10:30am  
Morning Break

11:00am Nick Wright (Keele U)  
The rotation - activity relationship of M dwarfs

11:30am Beate Stelzer (U Tuebingen)  
The long-term evolution of an M star’s magnetic activity: Is a calibration possible?

12:00pm Panel Discussion{panel5}  
Are M-dwarfs the ideal planet hosts?

12:30pm  
Morning Break

**White Dwarf Planets and Properties, Chair: Eric Agol (U Washington)**

2:00pm Dimitri Veras (U of Warwick)  
Dynamics of planetary systems with white dwarf host stars

2:30pm JJ Hermes (BU)  
Better characterizing white dwarfs to illuminate planet occurrence around
Old stars with good tickers - are the beating hearts of white dwarfs regular enough for planet detection?

CONFERENCE END: SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location (See Registration Desk BEFORE FRIDAY to sign up.)