Exoplanets in the Post-Kepler Era
May 20th & 21st, 2013

Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics
60 Garden Street, Cambridge, Massachusetts

Monday, May 20th

8:30 Coffee and Pastries

9:00 Welcome
Charles Alcock, Director, Harvard-Smithsonian Center for Astrophysics

Doppler and Transits in 2013

9:05 Searching for Earth-Twins: A Quest for RV Precision Over the Last Two Decades, Michel Mayor (Geneva Observatory)

9:40 The Once and Future Kepler: Recent Results and News from the Sweet Hereafter, Jon Jenkins (SETI Institute)

The Emerging Population of Super-Earths and Sub-Neptunes

10:05 Statistical Properties of the Small Planets Discovered by Doppler and Transit Surveys, Andrew Howard (University of Hawaii)

10:30 Coffee Break

11:00 New Masses and Radii for 20 Small Planets from Kepler
Geoff Marcy (University of California Berkeley)

11:25 Glimpsing the Composition Distribution of Sub-Neptune-Size Exoplanets
Leslie Rogers (California Institute of Technology)

11:50 A Framework for Atmospheric Escape from Low-Mass Planets
Ruth Murray-Clay (Harvard-Smithsonian Center for Astrophysics)

12:15 Lunch

2:00 Probing the Metallicity of the Kepler Exoplanet Host Stars
Lars A. Buchhave (University of Copenhagen)
**TESS: The Transiting Exoplanet Survey Satellite**

2:25 TESS: Discovering New Earths and Super-Earths in the Solar Neighborhood
George Ricker (Massachusetts Institute of Technology)

2:50 TESS Science: Learning from Kepler
David Latham (Harvard-Smithsonian Center for Astrophysics)

3:15 Coffee Break

**The Small Star Opportunity**

3:45 The Cool Kepler Objects of Interest (KOIs) and Beyond
John Johnson (California Institute of Technology)

4:10 Precise Radial Velocities in the NIR: Challenges and Opportunities
Suvartha Mahadevan (Pennsylvania State University)

4:35 MEarth: Making the Most of the (Nearby) Small Star Opportunity
Jonathan Irwin (Harvard-Smithsonian Center for Astrophysics)

5:00 End of Talks for Day 1

Dinner is at 6pm at the Harvard Faculty Club, 20 Quincy Street, Cambridge, MA
Speaker: Owen Gingerich (Harvard-Smithsonian Center for Astrophysics)

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**Tuesday, May 21**

8:30 Coffee and Pastries

**The Legacy of Multi-Planet Systems and Photo-dynamics**

9:15 Dynamics and Architecture: It's about Time
Daniel Fabrycky (University of Chicago)

9:40 The Legacy of Giant Planet Dynamical Histories
Rebekah Dawson (Harvard-Smithsonian Center for Astrophysics)

10:05 BEER analysis of Kepler and CoRoT light curves: Kepler-76b: A Hot Jupiter
with Evidence for Superrotation, Tsevi Mazeh (University of Tel Aviv)

10:30 Coffee Break
The Push Toward 9 cm/s

11:00  The Role of Radial Velocities in the Quest for New Earths
       Stéphane Udry (Geneva Observatory)

11:25  Combining Multiple Activity Diagnostics to Improve RV Precision
       Suzanne Aigrain (University of Oxford)

11:50  Improving Exoplanet Mass Measurements in the ELT Era
       Andrew Szentgyorgyi (Harvard-Smithsonian Center for Astrophysics)

12:15  Lunch

Toward the Atmospheres of Small Planets, and Biosignatures

2:00  Beyond Hot Jupiters: Planetary Atmospheres across the Mass and
      Temperature Spectrum, Heather Knutson (California Institute of Technology)

2:25  Finding Extraterrestrial Life Using Ground-based High-dispersion
      Spectroscopy, Ignas Snellen (Leiden Observatory)

2:50  An Equation to Estimate the Probability of Identifying an Inhabited World
      Within the Next Decade, Sara Seager (MIT)

3:15  Closing Remarks

At the conclusion of the formal program, attendees are invited to join a wine tasting.