Kepler/K2 Science Conference IV Program

Version 1, May 9 2017

Monday, June 19

Session 1 *Kepler & K2 Updates*

8:00-9:00 Press Conference
9:00-9:15 Welcome to Ames & Logistics
9:15-9:30 Jessie Dotson: K2 Project Status & Future Opportunities
9:30-10:00 Susan Thompson (invited): Kepler's Final Exoplanet Catalog

10:00-10:30 Coffee Break

Session 2 *Benchmark Systems from Kepler/K2*

10:30-11:00 Jason Rowe (invited): Interesting benchmark systems from Kepler/K2
11:00-11:15 Rodrigo Luger: K2 unveils a seven-planet resonant chain in TRAPPIST-1
11:15-11:30 Songhu Wang: Improved Masses for the Potentially Habitable TRAPPIST-1 Planets
11:30-11:45 Courtney Dressing: Characterizing K2 Planetary Systems Orbiting Cool Dwarfs
11:45-12:00 Andrew Vanderburg: HARPS-N Observations of K2 Planet Candidates and Planet Masses in the WASP-47 System

12:00-13:30 Lunch Break

Session 3 *Asteroseismology of Solar-Like Oscillators*

13:30-14:00 Dennis Stello (invited): The asteroseismic revolution of red giant stars: from stellar interiors to the structure of the Milky Way
14:00-14:15 Matteo Cantiello: Asteroseismic Signatures of Evolving Internal Stellar Magnetic Fields
14:15-14:30 Enrico Corsaro: Spin alignment of stars in old open clusters
14:30-14:45 Jamie Tayar: Core and Surface Rotation Rates of Evolved Intermediate Mass Stars
14:45-15:00 Kevin Schlaufman: Joint Spectroscopic and Asteroseismic Analysis of Very Metal-poor Stars in the Kepler Field

15:00-15:30 Coffee Break

Session 4 *Exoplanets & Stars*

15:30-15:45 Erik Petigura: The California Kepler Survey: High-Resolution Spectroscopy of 1305 Stars Hosting Transiting Planets
15:45-16:00 Rob Wittenmyer: Revised radius estimates for K2 planet candidates from AAT/HERMES
16:00-16:15 Tim Bedding: Surface Gravities for 15,000 Kepler Stars measured from Stellar Granulation

16:15-16:30 Emily Sandford: Know the Planet, Know the Star: Precise Stellar Parameters with Kepler
16:30-16:45 Rachel Matson: Stellar companions of K2 Exoplanet Candidate Host Stars
16:45-17:00 Lea Hirsch: Assessing the Effect of Stellar Companions to Kepler Objects of Interest

17:00-tbd Poster Session I

Tuesday, June 20

Session 1 Extragalactic & Solar System Science

8:30-9:00 Armin Rest (invited): High-cadence Light Curves of Transients from the Kepler Telescope
9:00-9:15 Brad Tucker: The Kepler Supernova Cosmology Experiment - C16 and C17
9:15-9:30 Erin Ryan: K2's Keys to the Solar System: Lightcurves of Trojan and Hilda Asteroids
9:30-9:45 Miguel de Val-Borro: K2 photometry of comet 67P/Churyumov-Gerasimenko
9:45-10:00 Carey Lisse: K2 Observations of the Pluto-Charon System

10:00-10:30 Coffee Break

Session 2 Exoplanet Formation & Evolution

10:30-11:00 Ruth Murray Clay (invited): Planet formation and evolution: Implications for planetary compositions
11:00-11:15 Aaron Rizzuto: The Exoplanet Migration Timescale from K2 Young Clusters
11:15-11:30 John Brewer: Beyond Metallicity: Chemical Tracers of Planet Formation
11:30-11:45 Samuel Grunblatt: Re-Inflated Planets Orbit Evolved Stars: Toward Solving a 17-Year-Old Puzzle in Exoplanet Science
11:45-12:00 Vincent van Eylen: Planets around evolved stars: formation or evolution?

12:00-13:30 Lunch Break

Session 3 Exoplanet Formation & Evolution (cont'd) + Microlensing

13:30-13:45 James Owen: Evaporation Of Close-in Planets: The "Evaporation Valley"
13:45-14:15 Calen Henderson (invited): K2's Campaign 9: The First Automated Microlensing Survey from the Ground and from Space
14:15-14:30 Wei Zhu: K2C9 Early Science Results and Synergy with Spitzer Microlensing
14:30-14:45 Radek Poleski: K2 observations of microlensing superstamp in Campaign 9 and selected targets in Campaign 11
14:45-15:00 Matthew Penny: Forward Model Photometry of K2 Crowded Field Data

15:00-15:30 Coffee Break

Session 4 Galactic Archeology

15:30-16:00 Jennifer Johnson (invited): Peering into the past: Galactic Archaeology with Kepler and K2
16:00-16:15 Joel Zinn: Mind the GAP: A 360 degree view of the Galaxy with the K2 Galactic Archaeology Program
16:15-16:30 Victor Silva Aguirre: Age dissection of the Milky Way disk using asteroseismology
16:30-16:45 Marc Pinsonneault: Asteroseismology and Spectroscopy for a Large Sample of Kepler Dwarfs and Subgiants
16:45-17:00 Ruth Angus: The ages of K2 dwarfs

Wednesday, June 21

Session 1 Asteroseismology of Classical Pulsators

8:30-9:00 Conny Aerts (invited): Asteroseismology of Hot Stars
9:00-9:15 Timothy van Reeth: The interior rotation of intermediate-mass stars
9:15-9:30 Timothy White: Beyond the K2 bright limit: variability in the brightest stars in the ecliptic
9:30-9:45 László Molnár: The K2 RR Lyrae and Cepheid Survey: hunting for pulsating stars, near and far
9:45-10:00 JJ Hermes: Evidence from K2 for rapid rotation in the descendant of an intermediate-mass star

10:00-10:30 Coffee Break

Session 2 Exoplanet Occurrence Rates

10:30-11:00 Chris Burke (invited): Terrestrial Planet Occurrence Rates From Kepler: Past, Current, and Future
11:00-11:15 Danley Hsu: Characterizing Kepler Planet Occurrence Rates Using Approximate Bayesian Computation
11:15-11:30 Ian Crossfield: Crowd-sourced Planet Occurrence: Citizen Science with K2
11:30-11:45 Steve Bryson: Science Yield from the Kepler Certified False Positive Table
11:45-12:00 Adam Kraus: The Ruinous Impact of Close Binary Companions on Planetary Systems

12:00-13:30 Lunch Break

Session 3 Breakout Sessions Part I

13:30-15:00 Kepler Occurrence Rate Hack (Natalie Batalha)
13:30-15:00 Speed-Dating with TESS (Tom Barclay)
13:30-15:00 Gaussian Processes (Daniel Foreman-Mackey)

15:00-15:30 Coffee Break

Session 4 Breakout Sessions Part II

15:30-17:00 Kepler Occurrence Rate Hack (Natalie Batalha)
15:30-17:00 NASA Exoplanet Exploration Program Update (Karl Stapelfeldt)
15:30-17:00 EVEREST Tutorial and Hack Session (Rodrigo Luger)

Thursday, June 22

Session 1 Exoplanet Compositions

8:30-9:00 Angie Wolfgang (invited): The Mass-Radius "Relation" and the Diversity of Exoplanet Compositions
9:00-9:15 Eric Lopez: Predictions for the Transition Between Rocky Super-Earths and Gaseous Sub-Neptunes
9:15-9:30 BJ Fulton: The California-Kepler Survey. III. A Gap in the Radius Distribution of Small Planets
9:30-9:45 Tsevi Mazeh: The Planetary Mass-Radius Relation and its Dependence on Orbital Period as Measured by Transit Timing Variations and Radial Velocities
9:45-10:00 Luca Malavolta: Kepler-9 and Kepler-19: two pivotal systems that reconcile RV and TTV mass determinations

10:00-10:30 Coffee Break

Session 2 Rotation, Activity & Clusters

10:30-11:00 Luisa Rebull (invited): Stellar Rotation in Clusters with K2
11:00-11:15 Rebecca Esselstein: Determining the Rotation Periods of M67 and Their Implications on Stellar Evolution from K2 Data
11:15-11:30 Jason Curtis: The K2 Survey of Ruprecht 147
11:30-11:45 James Davenport: Stellar flare rate evolution revealed by Kepler
11:45-12:00 Hiroyuki Maehara: Starspot activity and superflares on solar-type stars

12:00-13:30 Lunch Break

Session 3 Rotation, Activity & Clusters

13:30-14:00 Jennifer van Saders (invited): Kepler's Insights into Angular Momentum Evolution
14:00-14:15 Gibor Basri: Direct Signatures of Differential Rotation on Active Kepler Stars
14:15-14:30 Michael Gully-Santiago: Physical properties of starspots
14:30-14:45 Ben Montet: Observing Stellar Activity Cycles with Kepler
14:45-15:00 David Ciardi: Variable Variability: Understanding How Stars Vary from 4 years of Kepler Data

15:00-15:30 Coffee Break

Session 4 *Dynamics, Architectures & Binaries*

15:30-15:45 Gongjie Li: Uncovering Circumbinary Planetary Architectural Properties from Selection Biases

15:45-16:00 Dan Fabrycky: Differing Tidal Dissipation in exo-Earths, Super-Earths, and Sub-Neptunes from Resonant Chains of Planets

16:00-16:15 Daniel Jontof-Hutter: Outer Architecture of Kepler-11: Constraints from Coplanarity

16:15-16:30 Jerome Orosz: Kepler Triple Systems and Tidal Apsidal Structure Constants for Low Mass Stars

16:30-16:45 Avi Shporer: Radial velocity monitoring of Kepler heartbeat stars

16:45-17:00 Jim Fuller: Resonance Locking of Tidally Excited Pulsations in the Heartbeat Star KIC8164262

17:00-tbd *Poster Session II*

Friday, June 23

Session 1 *Exoplanet Compositions + Dynamics, Architectures & Binaries (cont'd)*

8:30-8:45 Evan Sinukoff: Small Planet Masses and Compositions from K2

8:45-9:00 William Cochran: Small planets from K2: Rocky or Gaseous?

9:00-9:15 Lauren Weiss: The California Kepler Survey V: Stellar and Planetary Properties of Kepler's Multiplanet Systems

9:15-9:30 Michael Werner: Spitzer Meets K2 - A Status Report

9:30-9:45 Sarah Millholland: A Systematic Search for Kepler Non-Transiting Hot Jupiters with Phase Curves

9:45-10:00 Bill Welsh: Non-Transiting Circumbinary Planets: Kepler's Hidden Gift

10:00-10:30 *Coffee Break*

Session 2 *Rotation, Activity & Clusters (cont'd) + Other topics*

10:30-10:45 Raphaëlle Haywood: Addressing stellar activity at every step in the HARPS-N RV follow-up of Kepler and K2 systems

10:45-11:00 Fabienne Bastien: Space-Based Light Curves as Predictors of Good Radial Velocity Planet Search Targets

11:00-11:15 Christina Hedges: Hunting for Dippers with Supervised Machine Learning

11:15-11:30 Valeri Makarov: Astrometry with Kepler: prospects and lessons learned

11:30-11:45 Flavien Kiefer: KIC8462852: boosting up the exocomet fragments model

11:45-12:00 Poster competition winners

12:00-13:30 *Lunch*

Session 3 *Future & Outlook*

13:30-14:00 Eric Mamajek (invited): Kepler/K2 in the Context of Future Exoplanet Missions

14:00-14:15 George Ricker: Unlocking the Secrets of Nearby Exoplanets with the Transiting Exoplanet Survey Satellite
14:15-14:30 Jessie Christiansen: TESSting the Waters: Coordinating the characterisation of HD 3167 as a learning experience for TESS follow-up
14:30-15:00 Dave Latham (invited): Kepler & K2 Highlights and Future Outlook

15:00 End of Conference

Poster Presentations

Contributed talk abstracts were converted to posters if they were not selected for a talk. Please notify the SOC chairs (huberd@hawaii.edu & agol@astro.washington.edu) if you do not plan to present a poster or if your abstract is missing.

Akeson, Rachel:	Kepler and K2 data in the NASA Exoplanet Archive
Angus, Ruth:	Testing stellar age models using co-moving K2 targets, identified with Gaia
Baranec, Christoph:	Robotic adaptive optics for visible and near-infrared characterization of stellar blends
Bayliss, Daniel:	Vetting HATSouth Exoplanet Candidates with K2
Bayliss, Daniel:	EPIC 201702477b - A High Density Transiting Brown Dwarf in a 41 day Orbit
Bayliss, Daniel:	HARPS-K2: A Large Program to Determine Densities for Low-Mass K2 Planets
Becker, Juliette:	Effects of Unseen Planetary Companions on Compact Exoplanetary Systems
Bell, Keaton:	A New Outburst Phenomenon in Cool Pulsating White Dwarf Stars
Biersteker, John:	Searching for Exoplanetary Oblateness Using Transit Depth Variations
Chang, Han Yuan:	Hyper-flares phenomena of M dwarfs
Charbonneau, David:	A temperate rocky super-Earth transiting a nearby cool star
Chontos, Ashley:	Asteroseismology of Kepler Exoplanet Hosts
Clanton, Christian:	The Dependence of Planet Occurrence Rate on Stellar Effective Temperature
Clarke, Riley:	Age-Activity Relationships in Kepler Wide Binaries
Cody, Ann Marie:	K2 Spies on the Lagoon
Colon, Knicole:	Preparing for JWST: Ground-Based Near-Infrared Studies of K2 Exoplanets
Coughlin, Jeffrey:	The Kepler Robovetter

Curtis, Jason:	A Warm Brown Dwarf Transiting a Solar Twin in a Benchmark Cluster: Discovered with an iPhone 6 at Disneyland
Dai, Fei:	Stellar Obliquity from Spot-crossings and Transit Mapping
Dalba, Paul:	Non-existent phantom stars and erroneous transit depth dilution
Davenport, James:	Rotating stars from Kepler observed with Gaia
Domagal-Goldman, Shawn:	Planet Classification, Beyond the Habitable Zone
Faigler, Simchon:	The dearth of short-period Neptunian exoplanets and its sharp edge: separating hot Jupiters and short-period super-Earths
Ford, Eric:	The Occurrence Rate of Planetary Architectures
Fukui, Akihiko:	Multiband Photometry of K2 Transiting Planets with MuSCAT and MuSCAT2
Garcia, Rafael A.:	Analysis of solar-like stars measured with DR25 Short-cadence data of Kepler main mission
Giampapa, Mark:	Rotation and Activity in the Suns of M67
Goldin, Alexey:	TBC
Grziwa, Sascha:	The KESPRINT collaboration
Grziwa, Sascha:	Wavelet based filter methods for the advanced detection of transiting planets in K2 light curves.
Guo, Xueying:	Ensemble Atmopheric Properties of Small Planets around M Dwarfs
Gurumath, Shashanka:	Evidence of Missing Terrestrial Mass and Migration of Jovian planets from the Kepler exoplanatery data
Haas, Michael:	Kepler's Product Menagerie
Haghighipour, Nader:	Detection of Inclined, Non-Transiting Circumbinary Planets Using Kepler Data
Hardegree-Ullman, Kevin:	Spitzer Transit Follow-up of the HD 3167 System
Hardegree-Ullman, Kevin:	Planet Occurrence Rates Around Mid-Type M Dwarfs in the Kepler Field
Hoffman, Kelsey:	Using Molecular Dynamics to Study the Material Properties of Exoplanet Interiors
Huber, Daniel:	Asteroseismology and Gaia: Testing Scaling Relations Using 2200 Kepler Stars with TGAS Parallaxes
Ikuta, Kai:	Estimation of starspot properties on superflare stars with a new technique on the basis of Bayesian method
Isaak, Kate:	CHEOPS: CHaracterising ExOPlanet Satellite
Jenkins, Jon:	The Kepler Data Processing Handbook: A Field Guide to Prospecting for Habitable Worlds
Jenkins, Jon:	Status of the TESS Science Processing Operations Center (SPOC)

Johnson, Marshall:	Warm Jupiters and their Spin-Orbit Misalignments from Kepler, K2, and Doppler Tomography
Jontof-Hutter, Daniel:	A targeted sample of low-mass exoplanet characterizations from transit timing.
Kaleida, Catherine:	The MAST Kepler and K2 Archive
Kane, Stephen:	A Catalog of Kepler Habitable Zone Exoplanet Candidates
Kruse, Ethan:	K2 Planet Candidates Using Everest and QATS
Kuchar, Thomas:	Dying Stars in the Kepler Field: A Progress Report
Lee, Chien-Hsiu:	Properties of eclipsing binaries from all-sky surveys
Lee, Chien-Hsiu:	Time-domain studies of M31
Lissauer, Jack:	Deducing the Characteristic Architecture of Inner Planet Systems from Kepler Data
Livingston, John:	200 Candidates and Validated Planets from Year Two of K2
Livingston, John:	Spitzer Confirmation of Planet Candidates from K2
Luhn, Jacob:	RVs with K2: Jitters, A New Planet, and Transit Probabilities for Subgiants
Martin, David:	Circumbinary planets - what Kepler has taught us and the complementary BEBOP radial velocity survey
Masuda, Kento:	Reassessment of the Null Result of the HST Search for Planets in 47 Tucanae
Mathur, Savita:	Studying the effect of magnetic activity on oscillations in solar-like stars
Matson, Rachel:	Radial Velocities of Kepler Eclipsing Binaries
Montiel, Edward:	K2 Observations of R Coronae Borealis Stars
Morello, Giuseppe:	Blind source separation for exoplanets data analysis
Morello, Giuseppe:	High-precision stellar limb-darkening in exoplanetary transits
Morello, Giuseppe:	ExoSim: an end-to-end simulator for transit spectroscopy
Morris, Brett:	The Active Latitudes of HAT-P-11
Murphy, Simon:	A planet in an 840-day orbit around a Kepler main-sequence A star
Nemec, James:	METAL ABUNDANCES FOR ~500 RR LYRAE STARS OBSERVED BY K2 (CAMPAIGNS 0-6)
Nemec, James:	DOUBLE-MODE RR LYRAE STARS OBSERVED DURING K2 CAMPAIGNS 1-6
Nemec, James:	SX PHE STARS IN THE KEPLER FIELD
Notsu, Yuta:	Statistical properties of superflares on solar-type stars with Kepler data
Notsu, Yuta:	Spectroscopic observations of solar-type superflare stars found from Kepler

Ofir, Aviv:	A spectral approach to transit timing variations
Olmedo Aguilar, José M.:	Near-UV Excesses and Variability of 660,000 Sources in the Kepler Field
Pál, András:	A review of the results related to Solar System studies
Pál, András:	TESS in the Solar System
Paudel, Rishi R.:	K2 Survey of Ultracool Dwarfs
Peralta, Raphaël:	Extraction of seismic indices and stellar granulation parameters for CoRoT and Kepler red giants using the MLEUP method
Ragozzine, Darin:	The Importance of Multi-Transiting Probability for Debiased Exoplanetary System Architectures
Ranc, Clément:	Simultaneous K2 Photometry and Light Curves Modeling for the Analysis of K2C9 Microlensing Observations
Rodriguez, Joey:	Constraining Planet Migration with K2 and TESS: Two Small Planets Transiting HD 106315
Rowden, Pamela:	Kepler as a calibrator for the false positive rate in future transiting exoplanet surveys
Rustamkulov, Zafar:	TBC
Ryan, Erin:	K2's Keys to the Solar System: Asteroid shape models from long baseline photometry
Schlieder, Joshua:	On The Trail of Jovians Transiting Low-Mass Stars with K2
Scott, Nic:	Speckle imaging follow-up for Exoplanet Validation and characterization
Sheets, Holly:	A Statistical Characterization of Reflection and Refraction in the Atmospheres of sub-Saturn Kepler Planet Candidates
Shporer, Avi:	K2 Warm Jupiters with the LCO TECH Team
Skinner, Julie:	Activity and Planets at the Bottom of the Main Sequence
Socia, Quentin:	KIC 9832227: Testing the Red Nova Merger Prediction Using Vulcan Data
Somers, Garrett:	Testing models of M dwarf angular momentum evolution with K2 young cluster rotation rates
Stauffer, John:	The Role of Binarity in the Angular Momentum Evolution of M Dwarfs
Stefansson, Gudmundur:	Extreme precision photometry from the ground with beam-shaping diffusers to follow-up Kepler, K2, and TESS targets
Thompson, Susan:	Kepler DR25 Exoplanet Catalog Highlights
Thorngren, Daniel:	Bayesian Inference of Hot Jupiter Radius Anomalies Points to Ohmic Dissipation
Trust, Otto:	Age of rotating stars in NGC 6811 Open cluster
Tucker, Brad:	GLUV - A High-Altitude Balloon-Borne UV Survey
Van Saders, Jennifer:	A K2 Stellar Astrophysical Study of the Old Open Cluster M67

Vega, Laura:	Evidence for Possible Disk Obscuration in Kepler Observations of the Pulsating RV Tau Variable DF Cygni
Vrard, Mathieu:	Amplitudes and lifetime of radial modes in red giant star spectra observed by Kepler
Wang, Ji:	Studying Planets in Binary Stars in Kepler and K2 Field of View
Wang, Songhu:	Kepler-9 -- A New Look at a Classic Planetary System
Windemuth, Diana:	Searching for Tatooines
Ziegler, Carl:	The Robo-AO KOI Survey: LGS-AO Imaging Of Every Kepler Planetary Candidate Host Star