

An artist's concept of the Kepler-16 system. It features two stars: a larger, bright yellow star at the top center and a smaller, reddish-orange star at the bottom right. A planet is visible as a small dark spot near the yellow star. The background is a dark field of stars.

# Exoplanet Exploration Program Analysis Group (ExoPAG)

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# ExoPAG Purpose

- ▶ Articulate and prioritize the key scientific drivers for Exoplanet Exploration research
- ▶ Evaluate the expected capabilities of potential ExEP missions for achieving the science goals of the Program
- ▶ Evaluate ExEP goals, objectives , investigations and required measurements on the basis of the widest possible community outreach
- ▶ Articulate and prioritize focus areas for needed mission technologies
- ▶ Provide findings on related activities such as ground-based observing, theory and modeling programs, laboratory astrophysics, suborbital investigations, data archiving and community engagement
- ▶ **<https://exoplanets.nasa.gov/exep/exopag/>**

# ExoPAG Membership

- ▶ **You**, the community, are the members!!!!
- ▶ This is **your** avenue to help shape the community input into ExEP and NASA regarding exoplanet exploration
- ▶ There is an executive council to help lead the ExoPAG direction and activities
  - ▶ 3 year terms
  - ▶ Calls for membership every year

## 2017 ExoPAG Executive Committee members

<b>Alan Boss</b> <i>Chair</i>	Carnegie Institution
<b>Daniel Apai</b>	U. Arizona
<b>Eliza Kempton</b>	Grinnell College
<b>David Ciardi</b>	NExScl/Caltech
<b>Shawn Domagal-Goldman</b>	NASA GSFC
<b>Tiffany Glassman</b>	Northrop Grumman
<b>Dimitri Mawet</b>	Caltech
<b>Tyler Robinson</b>	UC Santa Cruz
<b>Michael Meyer</b>	University of Michigan
<b>Johanna Teske</b>	Carnegie Institution for Science
<b>Chris Stark</b>	STScI
<b>Scott Gaudi</b> <i>Past Chair, Emeritus</i>	Ohio State University
<b>Martin Still,</b> <i>Ex officio</i>	NASA Headquarters

# ExoPAG Participation

- ▶ Participation is driven by you, the community
- ▶ Primary vehicles for participation in the ExoPAG
  - ▶ Monthly telecons
  - ▶ Semi-Annual in person meetings
    - ▶ January AAS Winter Meetings – usually the Saturday/Sunday before the meeting
    - ▶ June AAS Summer meetings or Exoplanet Topical Meetings (Kepler/K2 June 18)
- ▶ Discussion and presentations can be driven by you

# ExoPAG Activities

- ▶ ExoPAG Activities are driven by you, the community
- ▶ Science Interest Groups (SIGs)
  - ▶ SIG #1: “Exoplanet Exploration Program Analysis Group (ExoPAG) Report to Paul Hertz Regarding Large Mission Concepts to Study for the 2020 Decadal Survey”
  - ▶ Help formulate the exoplanet detection requirements for the next generation of large mission concepts for the 2020 Decadal
  - ▶ Advocated for a probe class missions to be studied, standard set of metrics and costing for mission comparisons
- ▶ Study Analysis Groups (SAGs)
  - ▶ Smaller, more focused analysis activities

# ExoPAG Study Analysis Groups

- ▶ SAGs are the most direct way for the community to communicate with and influence the direction and priorities of NASA and ExEP
- ▶ SAGs have real impact: To date: 19 SAGs – 7 ongoing
  - ▶ Example: “SAG 8: Requirements and Limits of Future Precision Radial Velocity Measurements” → helped to communicate to NASA the community need for a precision radial velocity instrument
  - ▶ Helped lead to NN-Explore program and the NEID PRV instrument
- ▶ Propose you own topics!
  - ▶ Generate your own ideas
  - ▶ What science questions are you asking that could have influence on the direction and priorities of the ExEP?
- ▶ **<https://exoplanets.nasa.gov/exep/exopag/sag/>**

# Summary and Discussion

- ▶ ExoPAG is a community group
- ▶ Influence and guide the direction and priorities of NASA's Exoplanet Exploration Program
- ▶ Pick a topic, generate your own idea, maybe lead a new SAG
- ▶ This is your group
- ▶ Join the ExoPAG mailing list:  
**<https://exoplanets.nasa.gov/exep/exopag/announcementList/>**

## So ... with that ...

- ▶ What can or should ExEP do to help the community advance the field?
- ▶ How are the ExEP community communications?
- ▶ How can ExEP make a difference directly?
- ▶ Your questions or topics?