



2015 Sagan/Michelson Fellowship Symposium

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NASA Exoplanet Science Institute

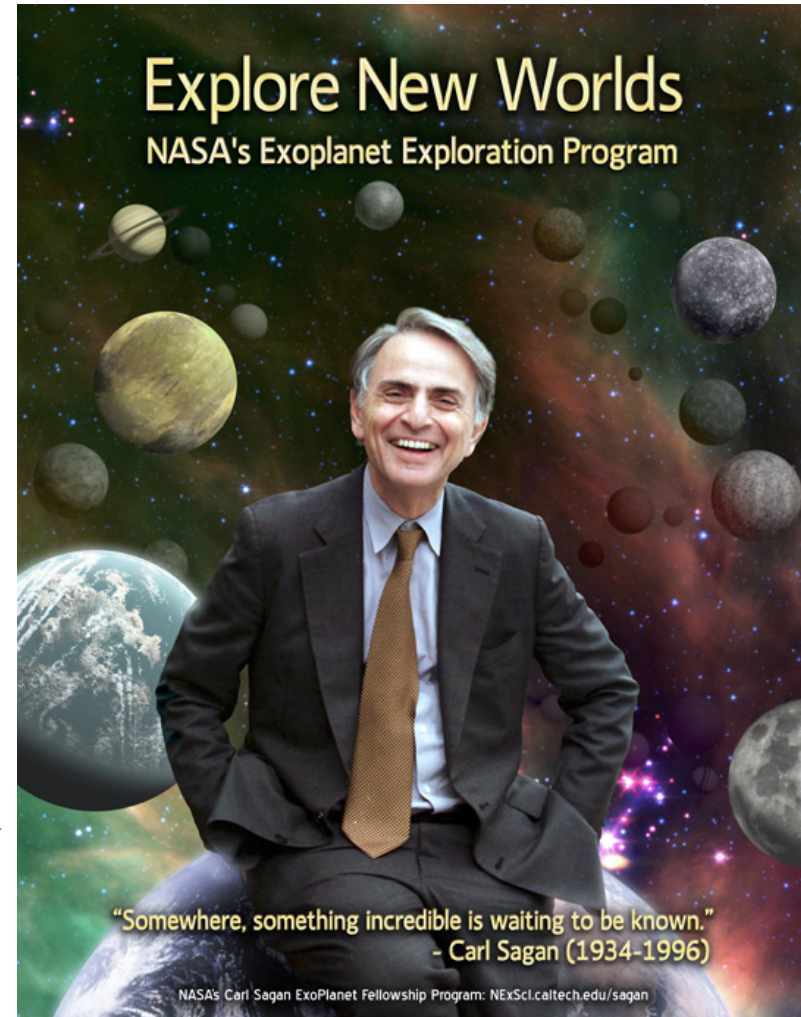
May 7, 2015

Welcome to the 2015 Fellowship Symposium!



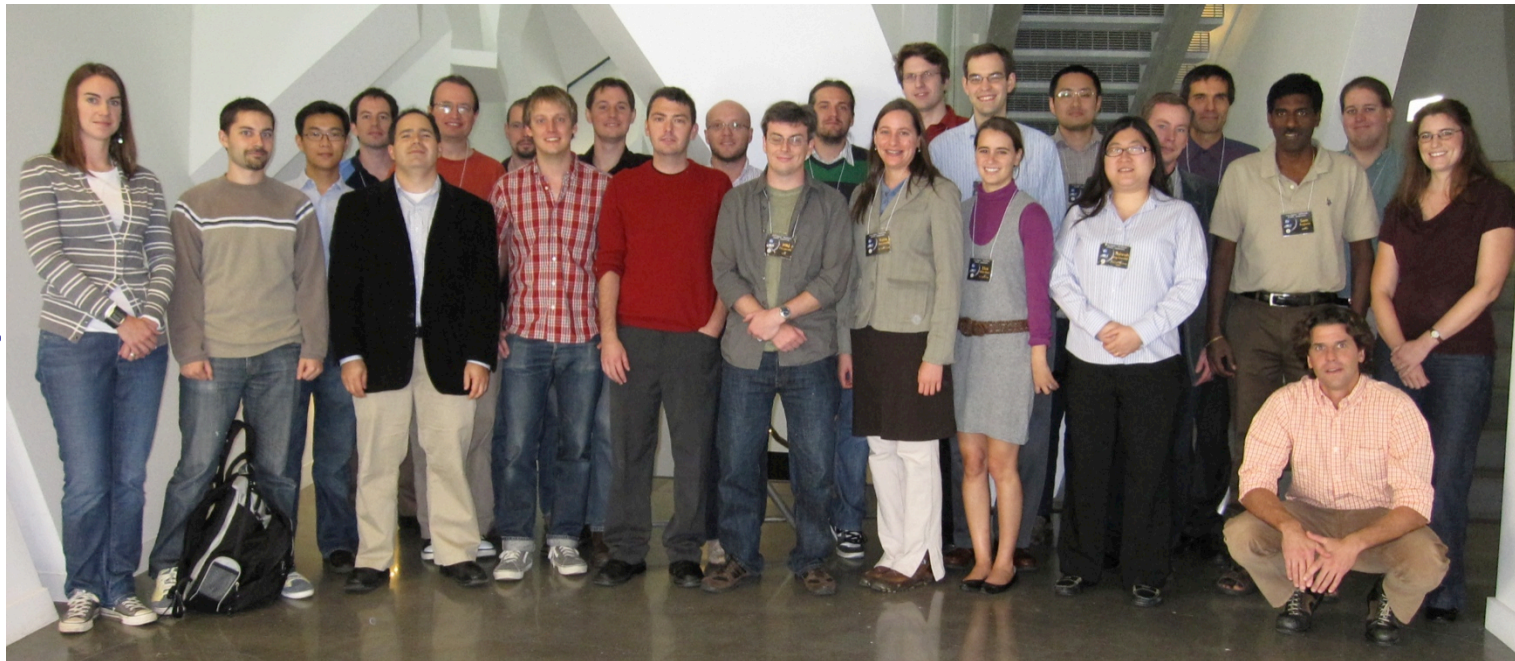
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- The Sagan Program is part of NASA's Exoplanet Exploration Program (ExEP), one of three science themed programs at NASA (including Cosmic Origins & Physics of the Cosmos)
- The primary goal of missions within ExEP is to discover and characterize planetary systems and Earth-like planets around nearby stars.
- The Sagan Program includes :
 - ✧ Sagan Postdoctoral Fellowship Program
 - ✧ Sagan Summer Workshops
 - ✧ Sagan Visitors Program



Michelson/Sagan Program

- This is the 3rd in our series of Fellowship symposia
 - ✧ Previous symposia held in 2005, 2009, and 2012
 - ✧ Future symposia will be held bi-annually
- Since the inception of the Michelson Program in 1999
 - ✧ 65 Postdoctoral Fellowships have been awarded (41 Sagan/24 Michelson)
 - ✧ 25 Michelson Graduate Student Fellowships have been awarded
 - ✧ Several hundred refereed papers have been published
- The 2015 Class of Sagan Fellows had a 17.1 oversubscription rate



A few 2012
Symposium
Participants

The Speakers (i.e. The Fellows!)



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➤ We have all of the current Sagan fellows and a number of the past Sagan and Michelson Fellows presenting!



➤ Special thanks to our speakers for submitting their presentations before the workshop!

➤ PDFs of all submitted presentations will be on-line at:
<http://nexsci.caltech.edu/conferences/2015/fellows15/agenda.shtml>

Speaker Instructions



- **We have a full agenda, so it is important that we stay on time!**

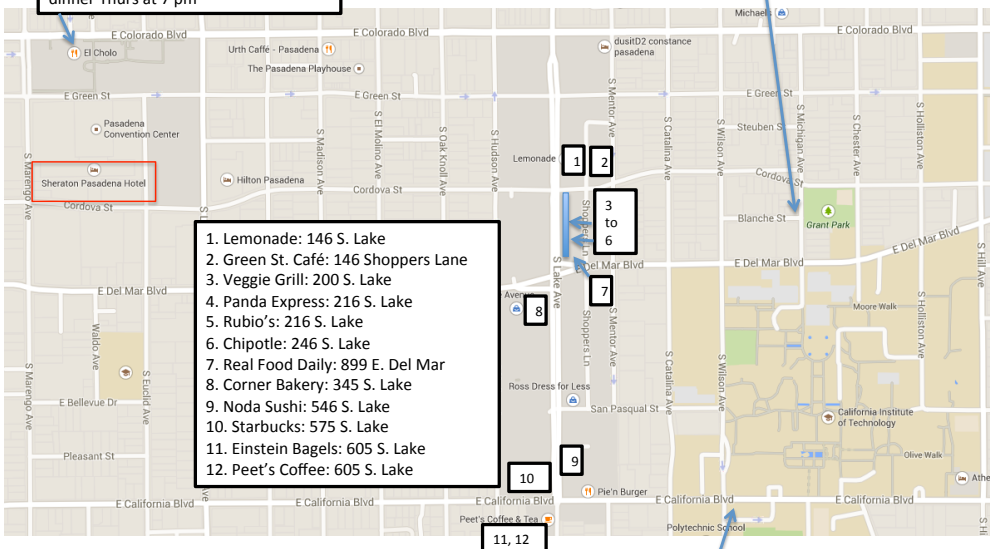
- **20 minute talks:**
 - Includes 5 minutes for questions
 - **Yellow** card means 5 minutes left
 - **Red** card means 2 minutes left
 - Timer beeping means no time left!

- Please make sure you are back from lunch on time to hear our exciting Keynote speakers!
 - Thursday: Prof. Jill Tarter (SETI Institute)
 - Friday: Dr. Ashwyn Vasavada (JPL, Mars Science Laboratory)

➤ Symposium Information: Agenda, Area map, NExSci information

El Cholo: 300 E. Colorado (2nd level)
dinner Thurs at 7 pm

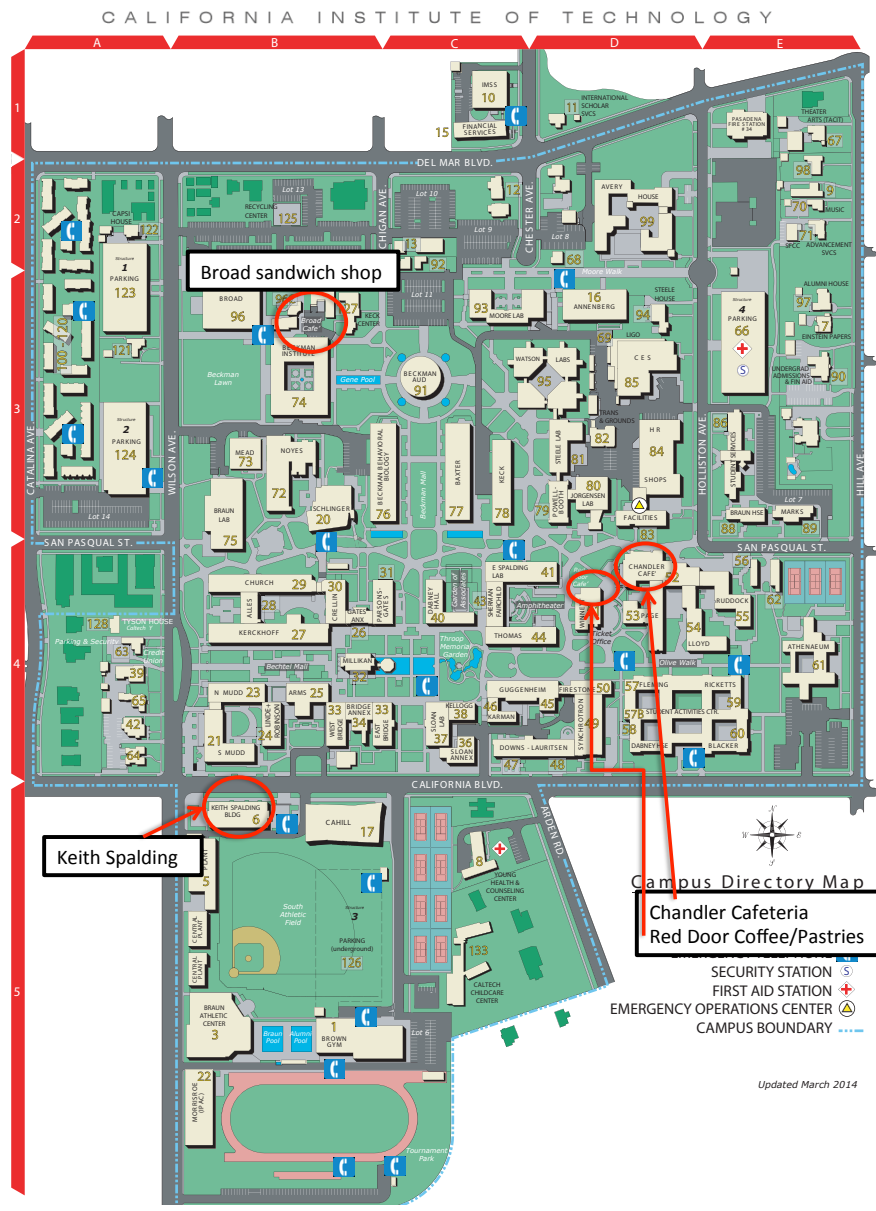
Ginger Café: 217 S. Michigan



1. Lemonade: 146 S. Lake
2. Green St. Café: 146 Shoppers Lane
3. Veggie Grill: 200 S. Lake
4. Panda Express: 216 S. Lake
5. Rubio's: 216 S. Lake
6. Chipotle: 246 S. Lake
7. Real Food Daily: 899 E. Del Mar
8. Corner Bakery: 345 S. Lake
9. Noda Sushi: 546 S. Lake
10. Starbucks: 575 S. Lake
11. Einstein Bagels: 605 S. Lake
12. Peet's Coffee: 605 S. Lake

Some of the places to have lunch near Caltech
(see over for campus dining locations)

Keith Spalding building
Symposium on 4th floor



Campus Directory Map
Chandler Cafeteria
Red Door Coffee/Pastries

- SECURITY STATION
- FIRST AID STATION
- EMERGENCY OPERATIONS CENTER
- CAMPUS BOUNDARY

General Information



- Meeting room is not locked, so leave items at your own risk
- Map available at the table outside with lunch options
- Symposium dinner is a buffet at El Cholo restaurant Thursday night beginning at 7:00 pm
 - If you are attending, and have not paid yet, please pay \$35 to Ellen O’Leary before 5 pm today
- If we are supporting part of your travel, please see Irene Loera in the foyer for any questions
 - Travel reports are to be submitted *AFTER* your return home
- Reminders:
 - Dispose of your trash properly
 - Silence your cell phones and laptops
 - Wireless access through ‘Caltech Guest’ or ‘Eduroam’



Items for fans of IRAC Exoplanet Data



"IRAC 2nd Workshop on High Precision Time Series Photometry: Getting the Most out of Exoplanet and Brown Dwarf Light Curves"

- **07 August 2015** Hawaii Convention Center (part of IAU meeting)
- Stop by and talk to IRAC folks (3rd floor) if you want to know more!

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SSC

IRAC HIGH PRECISION PHOTOMETRY

OPTIMIZING ANALYSIS TECHNIQUES FOR EXOPLANET AND BROWN DWARF LIGHT CURVE STUDIES

CORRELATED NOISE | TOOLS | DATA FEATURES | SAMPLE DATASETS | MEETINGS

The goal of high precision photometry is to reduce/remove correlated noise to achieve photon-noise limited photometry over all binning scales for all targets. This website presents the IRAC team's best understanding of those sources of correlated noise and their mitigation including current techniques and recommendations for both planning observations and reducing data. For more information on IRAC in general, see the [IRAC website](#).

This website is relevant for you if you:

- Need photon noise limited photometry for your science goals
- Have, or want to plan for, staring mode observations
- Observe time-variable signals at sub-percent precision level
- Want to learn about the instrumental effects which limit high precision photometry

Contributors to this website:
Jessica Krick, Jim Ingalls, Sean Carey, Carl Grillmair, Patrick Lowrance, Bill Glaccum, Jason Surace, Seppo Laine, Peter Capak

When acknowledging information presented in this website,

Flux

Time

occultation

star + planet dayside

star alone

star + planet nightside

transit

star - planet shadow

Winn et al. 2010

1.01

1.00

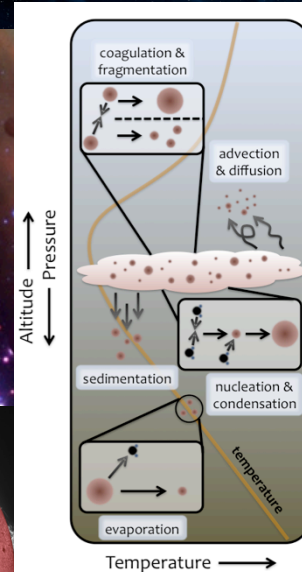
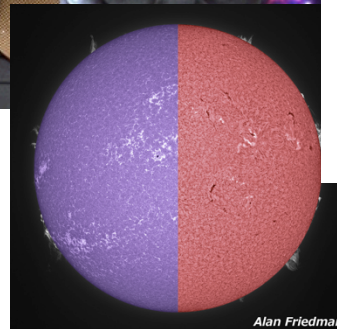
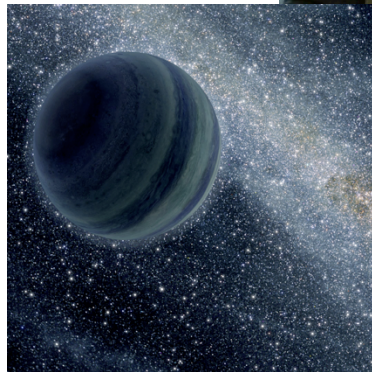
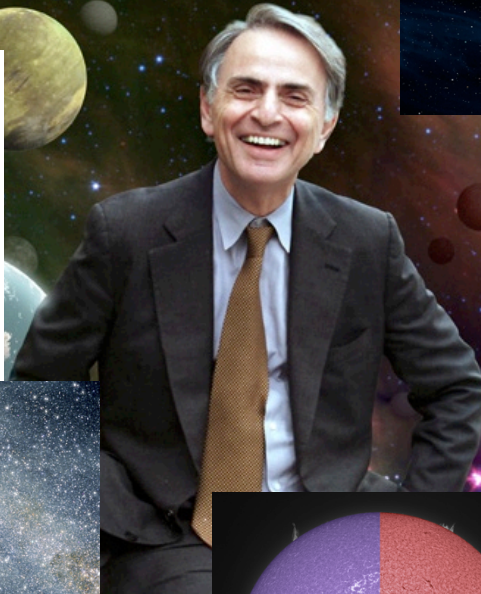
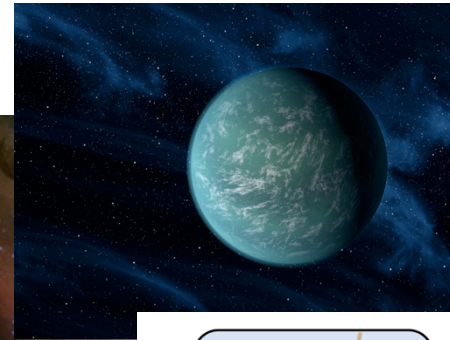
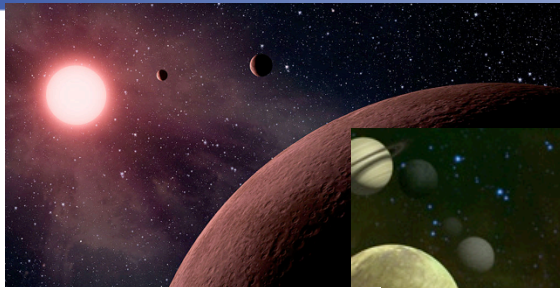
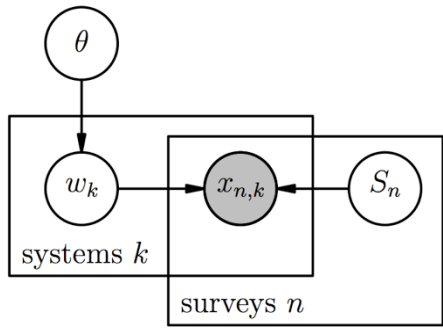
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- New IRAC High Precision Photometry website
 - <http://irachpp.spitzer.caltech.edu/>

Let's Get Started!!



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Have Fun and Enjoy the Symposium!!