



National Aeronautics and Space  
Administration  
Jet Propulsion Laboratory  
California Institute of Technology



NASA Exoplanet Science Institute

# 2009 Sagan Summer Workshop Orientation Information

**Dr. Dawn Gelino**

Sagan Program Scientist

NASA Exoplanet Science Institute

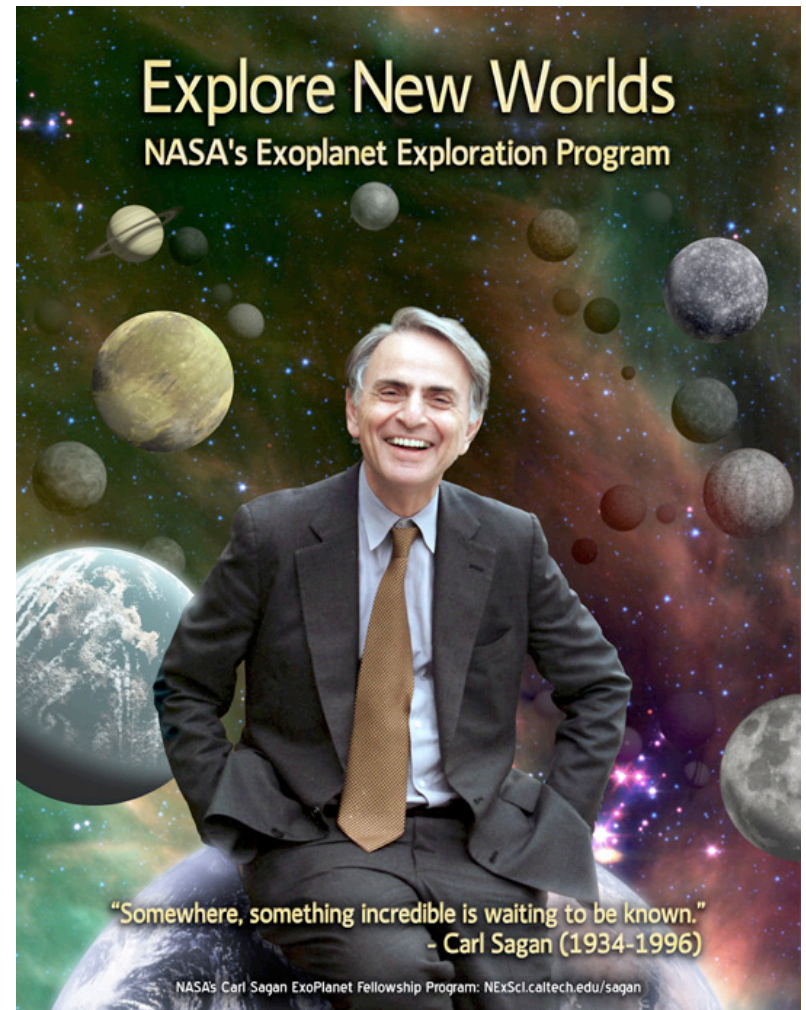
July 20, 2009

# Welcome to the 2009 Sagan Summer Workshop!



NASA Exoplanet Science Institute

- 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 SSW continues along the tradition of the past 10 Michelson Summer Workshops



# The Local Organizing Committee



NASA Exoplanet Science Institute

## ➤ The 2009 SSW LOC:

- Ellen O’Leary
- Dawn Gelino
- Kathy Golden
- Helga Mycroft
- Irene Loera
- Helene Seibly

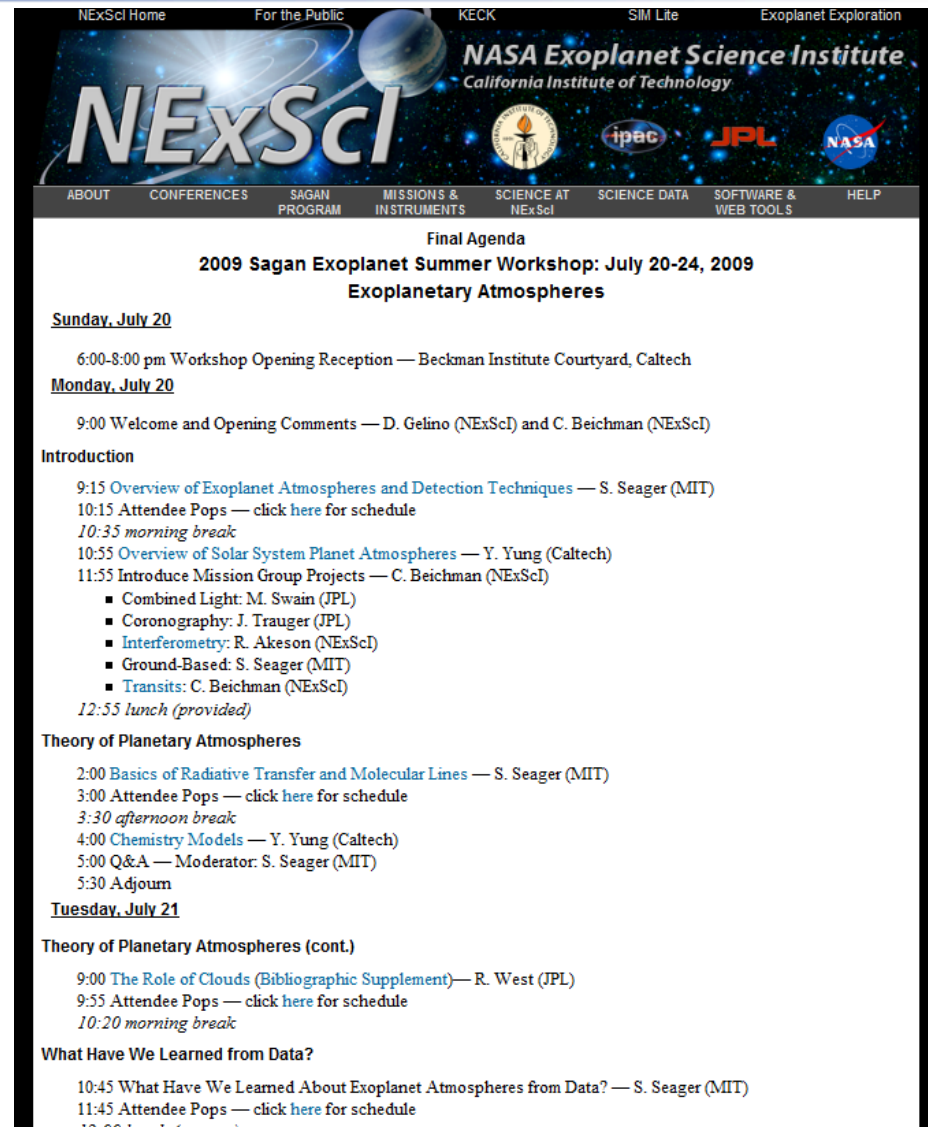


- Kathy, Irene, and Helene will be handling speaker and supported attendee travel reimbursements

# The Science Organizing Committee



- The 2009 SSW SOC:
  - Chas Beichman (NExSci)
  - Dawn Gelino (NExSci)
  - Glenn Orton (JPL)
  - Sara Seager (MIT)
  - Mark Swain (JPL)
  - Wes Traub (JPL)



The screenshot shows the NExSci website header with navigation links: NExSci Home, For the Public, KECK, SIM Lite, Exoplanet Exploration. The main header reads "NASA Exoplanet Science Institute, California Institute of Technology" and includes logos for ipec, JPL, and NASA. A secondary navigation bar contains: ABOUT, CONFERENCES, SAGAN PROGRAM, MISSIONS & INSTRUMENTS, SCIENCE AT NExSci, SCIENCE DATA, SOFTWARE & WEB TOOLS, HELP.

**Final Agenda**  
**2009 Sagan Exoplanet Summer Workshop: July 20-24, 2009**  
**Exoplanetary Atmospheres**

**Sunday, July 20**  
6:00-8:00 pm Workshop Opening Reception — Beckman Institute Courtyard, Caltech

**Monday, July 20**  
9:00 Welcome and Opening Comments — D. Gelino (NExSci) and C. Beichman (NExSci)

**Introduction**  
9:15 Overview of Exoplanet Atmospheres and Detection Techniques — S. Seager (MIT)  
10:15 Attendee Pops — [click here for schedule](#)  
10:35 morning break  
10:55 Overview of Solar System Planet Atmospheres — Y. Yung (Caltech)  
11:55 Introduce Mission Group Projects — C. Beichman (NExSci)

- Combined Light: M. Swain (JPL)
- Coronagraphy: J. Trauger (JPL)
- Interferometry: R. Akeson (NExSci)
- Ground-Based: S. Seager (MIT)
- Transits: C. Beichman (NExSci)

12:55 lunch (provided)

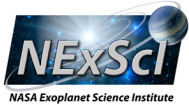
**Theory of Planetary Atmospheres**  
2:00 Basics of Radiative Transfer and Molecular Lines — S. Seager (MIT)  
3:00 Attendee Pops — [click here for schedule](#)  
3:30 afternoon break  
4:00 Chemistry Models — Y. Yung (Caltech)  
5:00 Q&A — Moderator: S. Seager (MIT)  
5:30 Adjourn

**Tuesday, July 21**

**Theory of Planetary Atmospheres (cont.)**  
9:00 The Role of Clouds (Bibliographic Supplement)— R. West (JPL)  
9:55 Attendee Pops — [click here for schedule](#)  
10:20 morning break

**What Have We Learned from Data?**  
10:45 What Have We Learned About Exoplanet Atmospheres from Data? — S. Seager (MIT)  
11:45 Attendee Pops — [click here for schedule](#)  
12:00 lunch (on own)

# The Speakers



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

➤ PDFs of all submitted presentations can be found on-line at:

<http://nexsci.caltech.edu/workshop/2009/agenda.shtml>





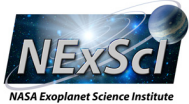
# New Interactive Workshop Features!



- **Attendee Pops**
  - All speakers in a given group will line up at the front of the room
  - Each speaker will be given *exactly 2 minutes* to present their submitted slides
  
- **Group Mission Projects**
  - Choose from 5 different types of missions
  - Sign-up before the end of lunch today
  - Group presentations on Friday afternoon
  - Prizes will be given out in a few categories
  - Supported attendees are especially encouraged to participate
  
- **Q & A Sessions** at the end of Mon, Tues, and Thurs



# Workshop Events



## ➤ Monday

- Sign up for group mission projects: lunch
- Group Photo: Afternoon Coffee Break @ 3:30 pm

## ➤ Wednesday

- Griffith Observatory Tour: 12:35 ~6 pm

## ➤ Thursday

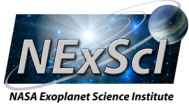
- Special Showing of *Journey to the Stars*
  - New show at the Hayden Planetarium
  - Curated by Dr. Ben Oppenheimer
- Workshop Banquet at Twin Palms: 6pm

## ➤ Friday

- Group Mission Presentations: after lunch
- Survey and Group Mission Prizes



# Free Stuff!!



- **In your NExSci folder:**
  - Pad of paper and NExSci pen
  - SSW09 Agenda
  - Bus, Tour, Dinner, and Internet info
  - NExSci information
  - NExSci Archives: NStED and KOA information
  
- **On the table:**
  - Sagan Fellowship information and posters
  - Pasadena and Caltech guides
  - Huntington Library “Beautiful Science” exhibit brochures
  
- **On the Message Board:**
  - Sign-ups for Group Mission Projects



# Tour of Griffith Observatory



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- Depart from campus Wednesday at 12:30 pm
- You must bring your ticket and badge
- Dress for walking in hot weather!
- Tour schedule included in your folder
- Bus will stop at Caltech and the Hilton when we return to Pasadena around 6 pm
- No bus transportation from campus to Workshop Hotel at 12:30
- Ticket exchange box located on the registration table
- Please let us know by 5pm Monday if now not planning on attending the tour (seating is very limited)





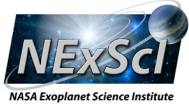
# Thursday Night Banquet



- 6:00 PM at Twin Palms
- You must bring your ticket and badge
- Additional tickets may be purchased for \$45 before the end of the day today
- No bus transportation will be provided
  - < 1 mile from workshop hotel (map in your folder)
- Buffet will include:
  - salad
  - hot vegetable medley, garlic mashed potatoes, bistro steak, mediterranean chicken, three cheese pasta with marinara sauce
  - assorted pastries and sweets
  - non-alcoholic drinks
- Cash bar available
- Please let us know by the end of the day today if you have changed your mind about attending



# Speaker Instructions



## 60 & 55 minute talks:

- Includes 7 minutes for questions
- **Yellow** card means 10 minutes left
- **Red** card means 5 minutes left

## 45 minute talks:

- Includes 5 minutes for questions
- **Yellow** card means 10 minutes left
- **Red** card means 3 minutes left

## 35 & 30 minute talks:

- Includes 5 minutes for questions
- **Yellow** card means 7 minutes left
- **Red** card means 2 minutes left

## 25 & 20 minute talks:

- Includes 3 minutes for questions
- **Yellow** card means 5 minutes left
- **Red** card means 2 minutes left

## 10 minute talks:

- Includes 2 minutes for questions
- **Yellow** card means 3 minutes left
- **Red** card means 1 minute left

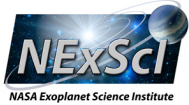
# General Information



- Auditorium is not locked, so leave items at your own risk
- Vegetarian and Vegan lunches will be held separately at the registration desk
- Travel reports are to be submitted *AFTER your return home*
- Travel Reports must include:
  - Completed reimbursement form (included in guidelines)
  - Original receipts
  - Working FAX number
- **Reminders:**
  - *No food/drink in the auditorium, please!*
  - *Silence your cell phones and laptops!*



# Let's Get Started!!



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MSW Class of 2007 at NASA Ames

*Have Fun and Enjoy the Workshop!!*