



### Science Outreach Activities

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## Topics in this Presentation



Plenary Talk Request

Talks given by SMO Scientists

Asilomar Conference

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SOFIA presence at AAS Meetings

SOFIA Community Days Workshops









### Request for SOFIA plenary talk at an AAS meeting

Meeting with Council Member, Charles Woodward during the San Diego AAS meeting, on the advice of SUG Chair, Matt Greenhouse.

Follow-up email exchange with Woodward in July/August 2016 - a case for a SOFIA talk sent; continued advocacy suggested. (Not successful in getting a plenary talk in the January 2017 meeting, but hopes alive for future meetings.)

Recent email: information that VPs will discuss the summer meeting sometime in December 2016, and SOFIA is still on their discussion list.

We will follow up with them - now with an even stronger case. Support from the SUG will continue to be important.







### Talks given by SMO Scientists



Date (2016)	Venue	Speaker	Notes
February II	Univ. of Virginia/NRAO	Reach	Seminar
February 15	Univ. of Colorado	Zinnecker	Seminar
March 9	SMA/Hilo	Sandell	Seminar
March 28	JHU/STScI	Sankrit	CAS Wine & Cheese
April 6	UT Austin	Becklin	Special Seminar
April 7	Texas A&M	Becklin	Colloquium
April 7	UC Berkeley	Reach	Colloquium, Lunch Seminar
April 13	lfA/Hilo	Sandell	Tech talk
April 28	UC Berkeley	Becklin	Colloquium, Lunch Seminar
May 10	Univ. of Arizona/NOAO	Young +	SOFIA Community Day
May 12	Northwestern	Andersson	Colloquium
May 27	NASA Ames	Becklin	SSA Division Colloquium
May 31	IfA/Manoa	Sandell	Lunch talk
June 6, 7	DRAO/DAO	Andersson	
June 21	JPL	Andersson	Research + SOFIA
October 7	VLA/NRAO	Zinnecker	
November 3 <del>or 10</del>	Univ. of Michigan	Zinnecker	Colloquium









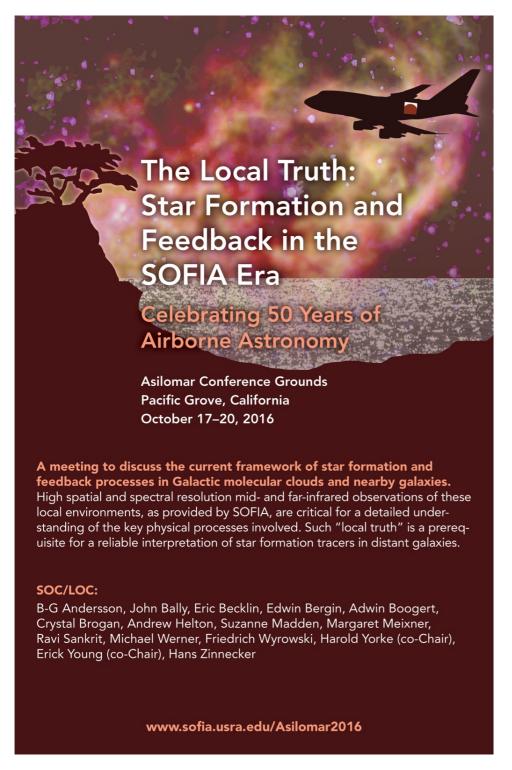
### Asilomar Conference











Attended by -90 people

High-quality talks

One internet-free day

Excellent weather

Positive feedback from participants

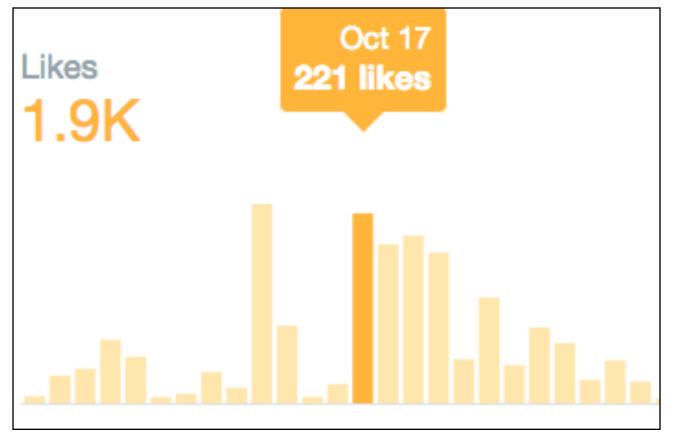
Presentations will soon become available

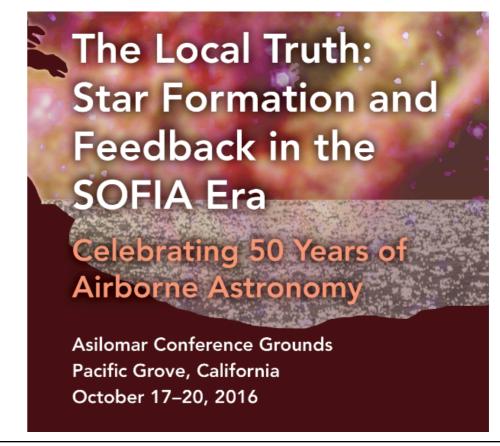


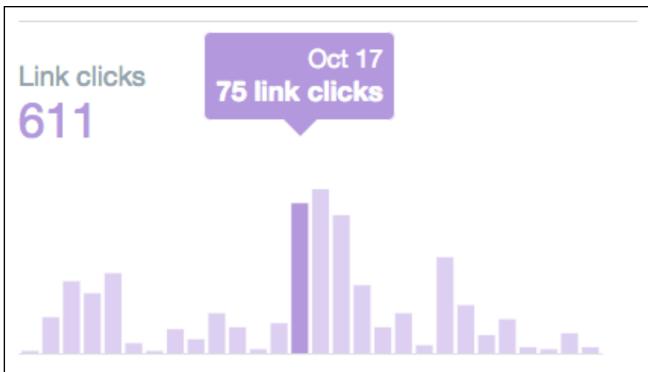


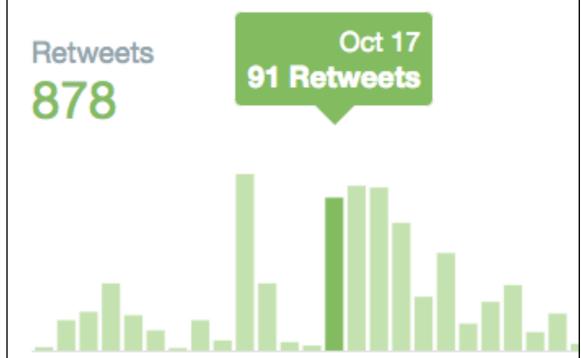




















## Web Releases









#### https://www.sofia.usra.edu/science/

#### SOFIA Science Highlight: Signatures of Infall in Massive Star Forming Clumps



An infrared image of the W43 star-forming region located 20,000 light years away in the direction of the constellation Aquila, one of the places where Wyrowski et al. detected cloud clumps collapsing to become massive stars.

(NASA/JPL-Caltech/2MASS)

#### Web release

Wyrowski et al. 2016, A&A, 585, 1490

Technical Information on SOFIA Observations

#### sofia-overview/science-results/TN-161007

Home » For Researchers » SOFIA Overview » Science Results » Technical note for "Infall through the evolution of high-mass star-forming clumps"

#### Technical note for "Infall through the evolution of high-mass star-forming" clumps"

Targets: G34.41+0.2, G23.21-0.3, G327.29-0.6, G34.26+0.2, G351.58-0.4, G35.20-0.7,

G5.89-0.4, W33A, W49N, W43MM1, G31.41+0.31

Target Description: Massive star forming clumps in a range of evolutionary stages

Instrument: GREAT

Spectral Element: L2 Channel Rest Frequency: 1810.38 GHz

Bandwidth: 2.5 GHz

Exposure times: 6 to 24 minutes

Observation dates: July 2011, and July 2013

Proposal IDs: 82\_0016, 01\_0174

Program PI: F. Wyrowski

Publication: Wyrowski et al. 2016, A&A, 585, 1490 [DOI] http://dx.doi.org/10.1051/0004-6361/201526361

#### **Technical Note**

The instrument was tuned to the NH3 ( $3_{2+}$  -  $2_{2-}$ ) transition at 1.8 THz, and the line was measured in absorption against bright continuum sources. The continuum levels ranged from 0.74 to 12.82K, and line opacities from 0.3 to 2.2. The high critical density of the transition (109 cm<sup>-3</sup>) makes it possible to trace dense gas. The high-resolution spectra (0.007 km/s velocity channel width) were smoothed to 0.5 km/s for the analysis.

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### SOFIA Presence at AAS Meetings









### The baseline plan for AAS meetings -

SOFIA booth at all AAS meetings, with at least 3 staff scientists available to answer questions and provide help, including hands-on demonstration of proposal tools, to users and potential users of the Observatory.

### Modular powerpoint presentation -

A presentation including an overview of SOFIA, instrument descriptions, and several science cases is being developed.

This will be used at the January 2017 AAS, and a version highlighting planetary astronomy will be tried at the December 2016 AGU for the NASA hyperwall.









## SOFIA Community Days Workshops







# SOFIA Community Day Workshop



(From my presentation at the 9th SUG Meeting)

The Workshop was held on Tuesday, May 10, 2016 at the Steward Observatory in Tucson, Arizona.

Local Organizers: Kate Su, Ben Weiner, Katie Morzinski, and Steve Ertel

#### Extract from announcement:

The goal of the SOFIA Community Day Workshop is to provide information and support to local astronomers to help them prepare and submit excellent observing proposals in response to the Cycle 5 call. Scientists from the SOFIA Science Center will provide a series of presentations about the observatory capabilities, instrumentation, and the proposal preparation process. There will be plenty of time for Q&A and hands-on time to work with proposal tools and the data archive. The workshop will be suitable for novices and experienced IR observers.

We are happy to announce that both the SOFIA Science Director and deputy director are coming for this event.







# SOFIA Community Day Workshop



(From my presentation at the 9th SUG Meeting)

Start-End Program; Presenter; Instruments

8:40-9:00 Sign-In/COFFEE/TEA

9:00-9:45 Introduction to the workshop/SOFIA/IR astronomy; Erick Young

9:45-11:00 Instruments - 1 (Imaging and Low-resolution Spectroscopy); Dario

Fadda; FLITECAM, FORCAST, FIFI-LS, HAWC+

11:00-11:20 COFFEE BREAK

11:20-12:35 Instruments - 2 (High-resolution Spectroscopy); Adwin Boogert;

EXES, GREAT, upGREAT

12:35-1:35 LUNCH BREAK (Provided)

1:35-1:50 Solar System studies; Bill Reach

1:50-2:20 Proposal Tools overview; Boogert/Fadda

2:20-3:30 Hands-on session

3:30 COFFEE BREAK/Additional hands-on time for those interested









### Plans for Spring 2017, in preparation for Cycle 6 -

Up to 4 workshops at locations distributed around the country

Aim for 1.5 days in order to include science talks by participants

Require that about 20 users or potential users of SOFIA are very likely to attend.

Depends critically on the local organization

Institutions/cities where impact is likely to be high have been identified, but there may be others that have not been considered yet.

### and beyond -

Identify 2-3 locations where will hold a workshop every other year.

### SUG support will be extremely useful!



