

# CHARA Year in Review

Douglas Gies  
CHARA Director

Georgia State University, Atlanta, GA, USA  
gies@chara.gsu.edu



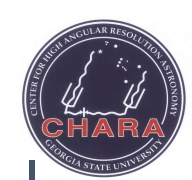
# CHARA in 2017

- Personnel
- Funding
- Science
- Community access and outreach



# CHARA MEETINGS

- 2005 Paris
- 2006 Tucson
- 2007 New York
- 2009 Nice
- 2010 Pasadena:  
Caltech
- 2011 Atlanta
- 2012 Atlanta
- 2013 Flagstaff
- 2014 Ann Arbor
- 2015 Atlanta
- 2016 Nice
- 2017 Pasadena:  
Carnegie
- 2018 Paris:  
*bienvenue à  
nouveau après  
13 ans!*



# Paris 2005



The CHARA Array

Georgia State University



# New staff

- Alicia Rice  
*Business Manager*  
GSU, Atlanta

(Brenda Stith retired  
2017 April)



# New staff

- Craig Woods  
*Assistant Site Manager*  
(Mount Wilson)
- First to spot  
Mount Wilson fire  
(2017 October 17)



# New staff

- Robert Klement  
Postdoctoral Research Associate  
(Mount Wilson)

Sponsored by GSU  
“Solar-Stellar Connection”  
program that includes:  
Piet Martens  
Stuart Jefferies  
Jane Pratt







# Staff Changes

- Gail Schaefer – *Visitor Support Scientist*
- Jeremy Jones – *Data Scientist*
- Chris Farrington – *Nighttime Operations Manager*
- Olli Majoinen – *Telescope Operator (full time)*
- Matthew Anderson – *Optical Laboratory Assistant*



# Staff Anniversaries

- Larry Webster –  
*CHARA Site Manager*  
10 years (2008 June 16)
- Theo ten Brummelaar  
*Director of the CHARA Array*  
25 years !!! (1993 April 26)



# Staff Kudos

- Douglas Gies  
GSU Alumni Distinguished Professor
- Hal McAlister  
Invited lecture  
“First Light: The Astronomy Century  
in California, 1917-2017”, Pasadena
- Gail Schaefer  
Invited presentation  
Decadal Survey Workshop, Tucson
- Fabien Baron  
GSU Dean’s Early Career Award

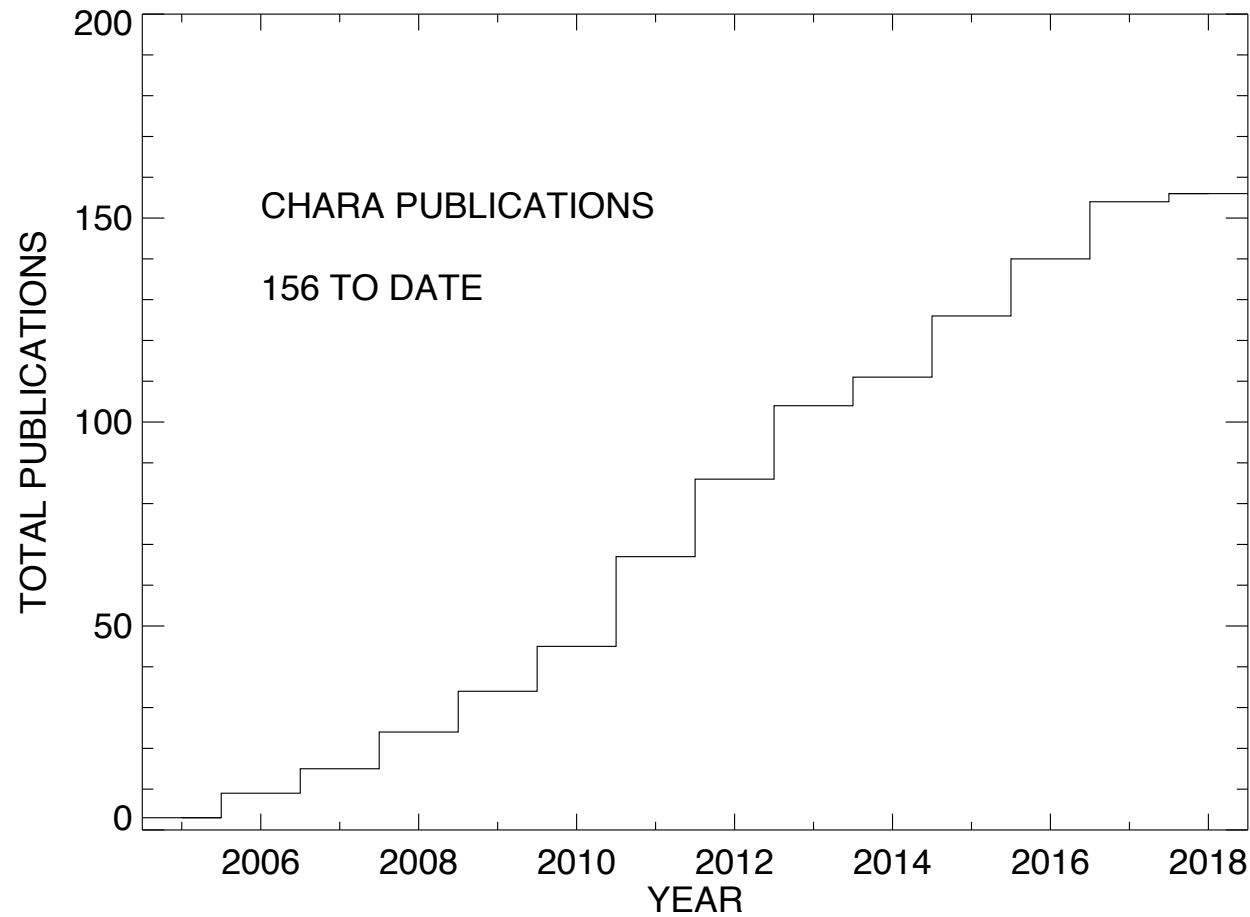




# Funding issues

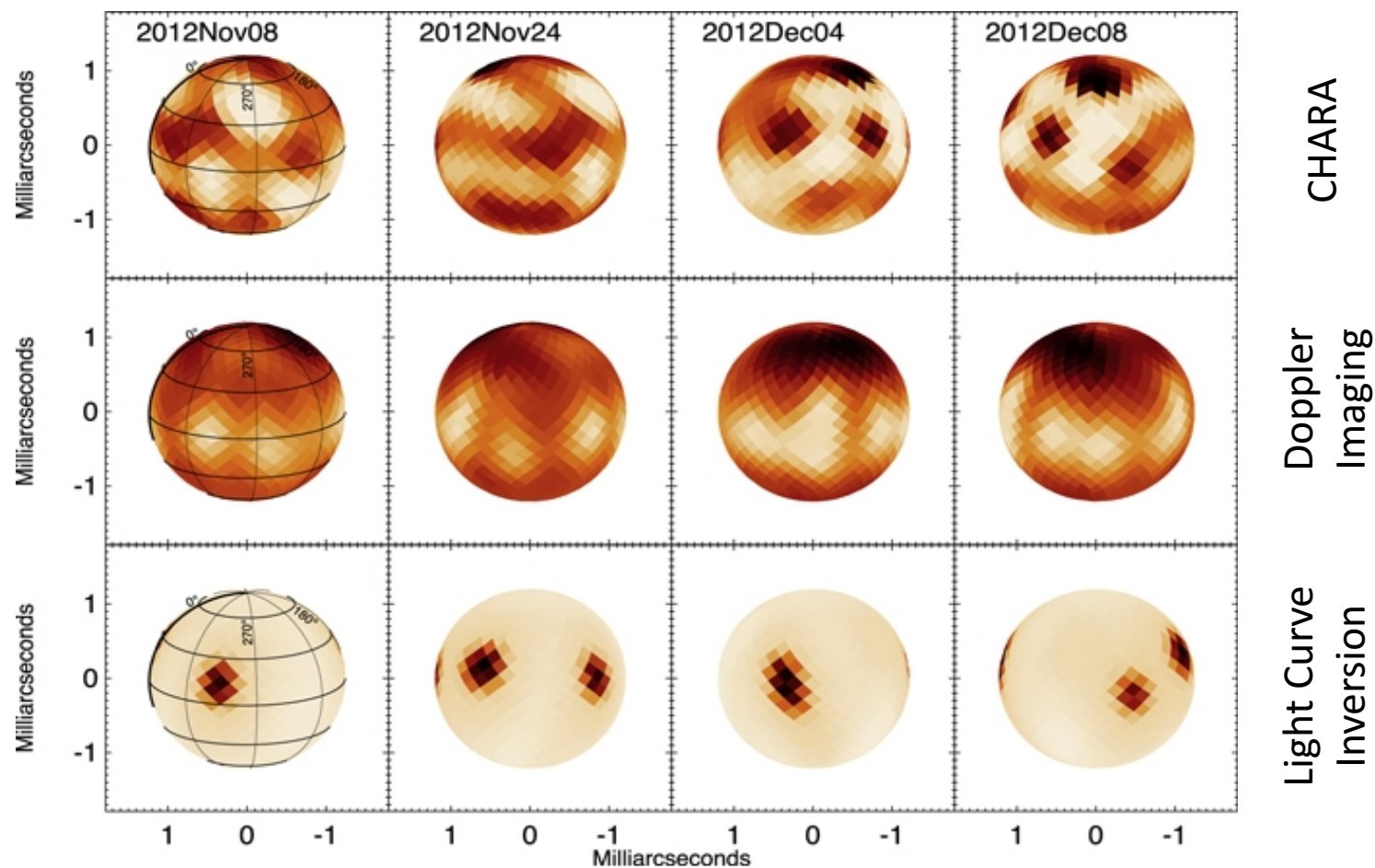
- New NSF grant for staff (Sept 2018 – Aug 2022)
- Other support from NSF and GSU College of Arts and Sciences
- Lodging costs at Mount Wilson:  
\$45 USD for the first night plus \$20 USD per night for successive nights per person. Costs will be waived for GSU employees, NOAO observers, those who have purchased telescope time, and others who apply to me.
- Guaranteed time purchases possible (see Theo and/or me).

# CHARA Publications: 14 in 2017

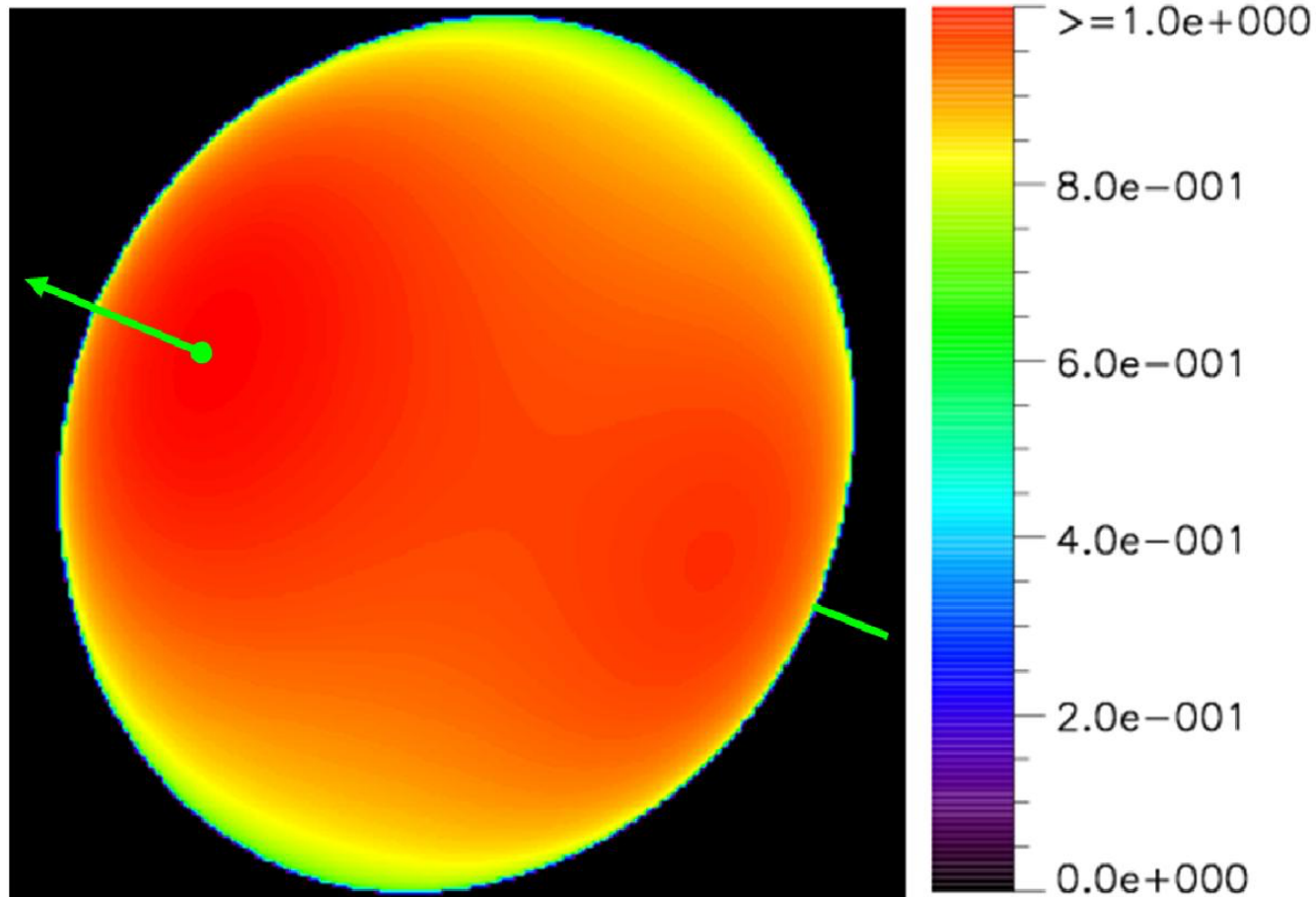


# Roettenbacher et al. 2017: Contemporaneous Imaging Comparisons of the Spotted Giant $\sigma$ Geminorum Using Interferometric, Spectroscopic, and Photometric Data

- Active giant star in RS CVn binary system
- Intercomparison of surface maps from three different methods
- More tomorrow



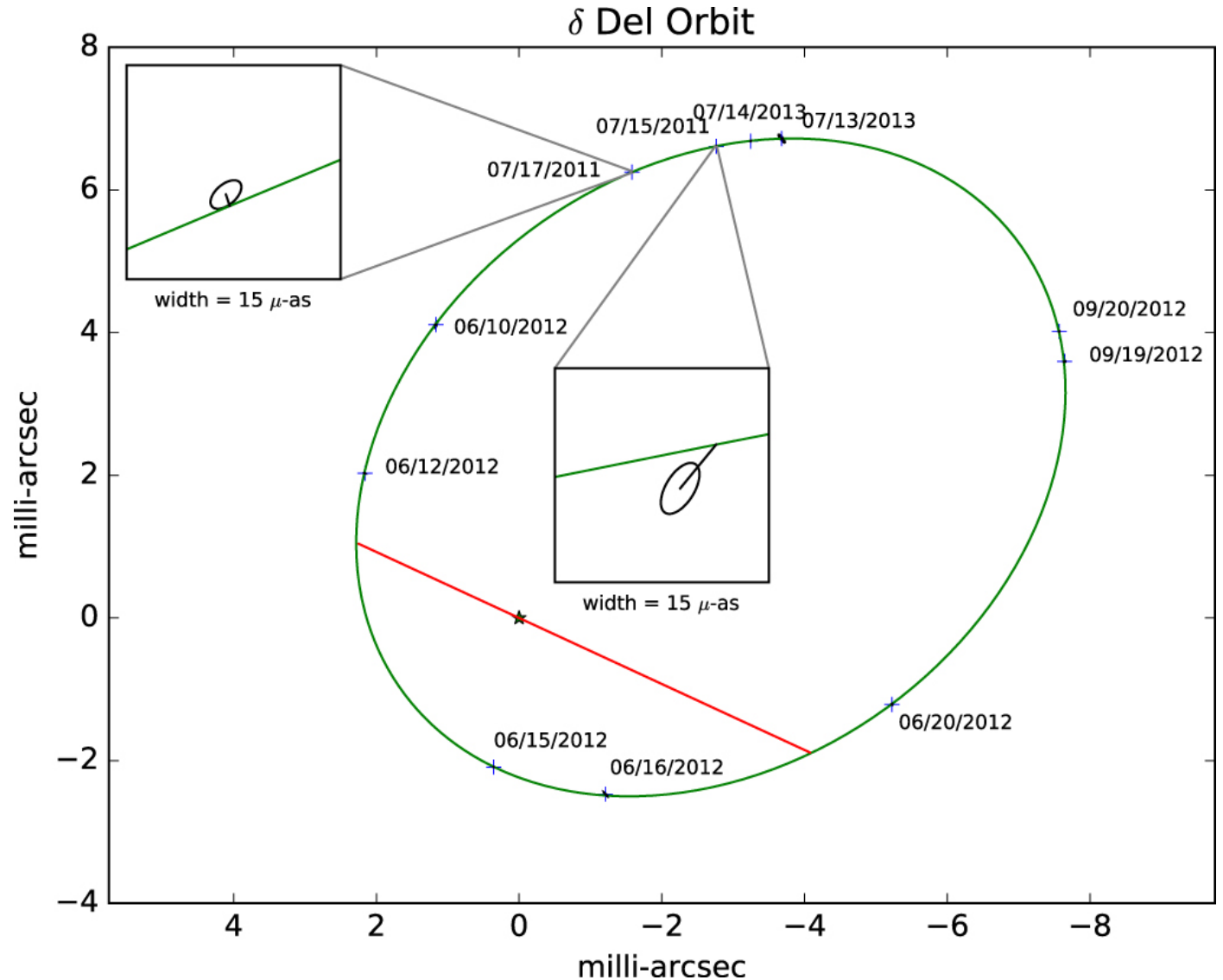
Challouf et al. (2017): Flattening and surface-brightness of the fast-rotating star  $\delta$  Persei with the visible VEGA/CHARA interferometer



- Rotation rate of B5 III star
- 57% critical velocity
- Surface intensity distribution

# Gardner et al. (2018): Precision Orbit of $\delta$ Delphini and Prospects for Astrometric Detection of Exoplanets

- Precise masses and distance
- Age and evolutionary state
- Look for astrometric wobble of exoplanets of few Jupiter masses





# Community Access to CHARA

- NSF/MSIP award for telescope access (Schaefer) and data archive (Jones)
- Offering 25 nights in each 6 month semester through NOAO
- Demand remains high (requested/awarded nights = 2)
- 2018B proposals due April 2 (August – December)
- Community workshops  
 Past: Toledo, Pasadena, Washington DC  
 Ahead:
  - HRD, STSci, Baltimore (April 26)
  - University of Texas, Austin (June 15)
  - Cool Stars, Boston University (July 30)



# Thanks to:

- *L'Observatoire de Paris – site de Meudon LESIA*
- *Centre International d'Ateliers Scientifique*
- *Local Organizing Committee*  
Vincent Coudé du Foresto  
Marie-Pierre Issartel  
Boris Trahin
- CHARA Collaboration Members
- to everyone for participating in this meeting



