

SHREYAS VISSAPRAGADA

California Institute of Technology, M/C 150-21, Pasadena CA 91125, USA
svissapr@caltech.edu

EDUCATION:

California Institute of Technology, Pasadena, CA
Graduate Student in Planetary Sciences

Sep 2017 –

Columbia University, New York, NY

B.A. in Astrophysics (*magna cum laude*); Concentration in Computer Science

Sep 2013 – May 2017

Thesis: *Predicting Complex Organic Molecule Emission from the TW Hya Protoplanetary Disk*
(Advisors: Drs. Catherine Walsh and Daniel Wolf Savin)

RESEARCH EXPERIENCE:

California Institute of Technology, Pasadena, CA

Searching for OSSO on Venus with ALMA

Feb 2018 –

Collaborators: Drs. Frank Mills, Brad Sandor, Arielle Moullet, Andy Ingersoll

Space-Like Infrared Photometry and Spectroscopy of Transiting Exoplanets with WIRC

Oct 2017 –

Advisor: Professor Heather Knutson

Resonant Ring Dynamics of Minor Planets

Oct 2017 – Sep 2018

Advisor: Professor Konstantin Batygin

Leiden Observatory, Leiden, The Netherlands

Complex Organic Molecule Formation and Survival in Protoplanetary Disks

Jun 2016 – Aug 2016

Advisors: Drs. Catherine Walsh and Vianney Taquet

Columbia Astrophysics Laboratory, New York, NY

Gas-Phase Formation of Water and Organic Molecules in Molecular Clouds

Oct 2014 – May 2017

Advisor: Dr. Daniel Wolf Savin

NATIONAL HONORS:

Paul & Daisy Soros Fellow (2019-)

NSF Graduate Research Fellow (2019-)

NSF Graduate Research Fellowship Program Honorable Mention (2017)

Barry M. Goldwater Scholarship (2016-2017)

USRA James B. Willett Educational Memorial Scholarship (2016-2017)

National Merit Scholarship (2013-2017)

PUBLICATIONS:

6. S. Tinyanont et al. (including **S. Vissapragada**) 2019, "WIRC+Pol: A Low-Resolution Near-Infrared Spectropolarimeter," *PASP*, 131, 025001
5. C. Walsh, **S. Vissapragada**, & H. McGee 2018, "Methanol formation in TW Hya and future prospects for detecting larger complex molecules in disks with ALMA," *Proceedings of the IAU*, 332, 395
4. N. F. W. Ligterink et al. (including **S. Vissapragada**) 2018, "Methanol ice co-desorption as a mechanism to explain cold methanol in the gas phase," *A&A*, 612, A88.
3. D. W. Savin, R. Bhaskar, **S. Vissapragada**, & X. Urbain 2017, "On the Energetics of the $\text{HCO}^+ + \text{C} \rightarrow \text{CH}^+ + \text{CO}$ Reaction and Some Astrochemical Implications," *ApJ*, 844, 154.
2. **S. Vissapragada** et al. 2016, "Recommended Thermal Rate Coefficients for the $\text{C} + \text{H}_3^+$ Reaction and Some Astrochemical Implications," *ApJ*, 832, 31.
1. N. de Ruelle et al. (including **S. Vissapragada**) 2016, "Merged-beams Reaction Studies of $\text{O} + \text{H}_3^+$," *ApJ*, 816, 31.

TALKS AND POSTERS:

Talks:

“Characterizing Exoplanets with Space-Age Precision at Palomar Observatory,” Greenway Talk, Palomar Observatory, 2019.

“Space-Like Infrared Photometry and Spectroscopy of Transiting Exoplanets with WIRC,” ExSoCal Meeting, Pasadena, CA, 2018.

“Predicting COM Emission from the TW Hya Protoplanetary Disk,” Astrobiology Graduate Conference, Charlottesville, VA, 2017; Yuk Yung Lunch Seminar, Caltech, 2017.

“Where Did We Come From? An Astrochemical Perspective,” Arts and Astro Exhibition, Columbia University, 2017.

“Tracing the Complex Organic Ice Reservoir in TW Hya,” LEAPS Symposium, Leiden, The Netherlands, 2016.

“The C + H₃⁺ Reaction in Astrochemistry,” Astronomy Department Lunch Talk, Columbia University, 2016.

Posters:

S. Vissapragada, H. Knutson, D. Jontof-Hutter et al., “Space-Like Infrared Photometry of *Kepler* TTV Systems with Palomar/WIRC” Kepler & K2 Science Conference V, Glendale, CA, 2019.

S. Vissapragada & H. Knutson, “Space-Like Infrared Photometry and Spectroscopy of Transiting Exoplanets with WIRC,” Palomar Science Meeting, Pasadena, CA, 2018; Sagan Summer Workshop, Pasadena, CA, 2018.

S. Vissapragada & C. Walsh, “Predicting Complex Organic Molecule Emission from TW Hya,” 229th Meeting of the American Astronomical Society, Grapevine, TX, 2017.

S. Vissapragada & C. Walsh, “Tracing the Complex Organic Ice Reservoir in TW Hya,” Astrofest, Columbia University, 2016.

S. Vissapragada, C. F. Buzard, & D. W. Savin, “Investigating the Cosmic Origins of Organic Chemistry,” Astrofest, Columbia University, 2015; Science Research Symposium, Columbia University, 2016.

TEACHING AND MENTORING:**California Institute of Technology, Planetary Sciences Option**

Teaching Assistant (Planetary Physics)

Jan 2019 - Mar 2019

Columbia Astrophysics Laboratory

Research Mentor (Roshan Bhaskar, current Columbia University undergraduate)

Mar 2016 - May 2017

Columbia University, Department of Astronomy

Teaching Assistant (Stars, Galaxies, and Cosmology; Life in the Universe; Stars and Atoms; and Earth, Moon, and Planets)

Jan 2015 - May 2017

Columbia University, Department of Computer Science

Teaching Assistant (Introduction to Computing for Engineering and Applied Science, Discrete Mathematics)

Jan 2016 - Dec 2016

INSTITUTE-LEVEL SERVICE AND OUTREACH**California Institute of Technology**

Caltech Graduate Student Council

Secretary

Jun 2018 -

Advocacy Committee Member

Jun 2018 -

Diversity Committee Member

Jun 2018 -

Caltech Astronomy Department

Volunteer (Science Train and Astronomy on Tap)

Jan 2018 -

Columbia University

Columbia blueShift (Astronomy Society), member

Oct 2014 - May 2017

Vice President

Oct 2014 - Jan 2016

“Arts and Astro” showcase coordinator

Mar 2017

Undergraduate Recruitment Committee, member and tour guide

Nov 2013 - May 2017

Science tour guide

Nov 2015 - May 2017

Student Interviewer

Nov 2014 - May 2017

Student Interviewing Coordinator

Sep 2016 - May 2017