

Dr. Apurva V. Oza
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EDUCATION	PhD Astronomy & Astrophysics, Sorbonne Universités	2014–2017
	M.S. – Astronomy, University of Virginia	2012–2014
	B.S. – Physics & Astronomy, University of North Carolina at Chapel Hill summa cum laude	2008–2012
	North Carolina School of Science and Mathematics	2006–2008
APPOINTMENTS	Staff Scientist, California Institute of Technology, USA	July 2024–
	Group supervisors: Prof Yuk L. Yung and Prof Jonathan Lunine	
	Assistant Professor (Affiliate), University of Hawai'i at Mānoa	April 2026–
	Postdoctoral Fellow, Jet Propulsion Laboratory, USA	2021–2024
	Advisor: Rosaly Lopes (Planetary Science Directorate)	
	Group Supervisors: Mathieu Choukroun (Small Bodies), Renyu Hu (Exoplanets and Astrophysics)	
	Visiting Lecturer, University of Bern, Switzerland	2019–2023
	Co-Instructor: Professor Yann Alibert (Director, Center for Space and Habitability)	
	Postdoctoral Researcher, University of Bern, Switzerland	2017–2020
	Planets in Time Group: Planetary Evolution with Atmospheric Photoevaporation	
GRANTS, FELLOWSHIPS & AWARDS	Advisor: Christoph Mordasini (Executive Director, Division of Space Research and Planetary Sciences)	
	Astronomer, Morehead Planetarium & Observatory, USA	2012
	ESA Science Faculty Visitor Program Awardee	2026
	European Space Astronomy Centre (ESAC), Madrid, Spain	
	JPL Office of Chief Scientist Postdoctoral Fellow	2021–2024
	NASA Postdoctoral Program (NPP) Fellow, deferred	(2021–2024)
	Advancing Indo-European Science University Program	2019
	University of Bern, Switzerland/Indian Institute of Astrophysics	
	2nd Place Presentation	2016–
	National Solar & Terrestrial Conference (PNST), Hendaye, France	
Invited Talks and Colloquia	Robert Shelton Award for Outstanding Research	2012
	UNC Department of Physics & Astronomy, USA	
	NASA Space Grant Fellow	2008–2014

Invited Talks and Colloquia

1. University of Virginia / National Radio Astronomy Observatory (NRAO)- (Spring 2026)
2. University of North Carolina at Chapel Hill (Spring 2026)
3. University of Colorado, Boulder (June 2026)
4. University of California Irvine (Oct. 6 2026)
5. University of California Riverside (Oct. 9 2026)

SELECTED PAPERS	Oza, A.V. et al. “Sodium and Potassium Signatures of Volcanic Satellites Orbiting Close-in Gas Giant Exoplanets.” <i>ApJ</i> , 885(2), 168	2019
	Oza, A.V. et al. “Dusk-Over-Dawn O ₂ Asymmetry in Europa’s Near-Surface Atmosphere.” <i>Planetary & Space Science</i> , 167, 230	2019
	Oza, A.V. et al. “Redshifted Sodium Transient near Exoplanet Transit.” <i>ApJ Letters</i> , 973, L53	2024
	Oza, A.V. and R.E. Johnson. “Common Origin of Trapped Volatiles in Oxidized Icy Moons and Comets.” <i>Icarus</i> , 411, 115944	2024
	Oza, A.V. et al. “Volcanic Satellites Tidally Venting Na, K, SO ₂ in Optical & Infrared Light.” <i>MNRAS</i>	2026
	Full publication list: web.gps.caltech.edu/~oza/publications3.html	
MENTORING & SUPERVISION	Alana Nisperos (California Institute of Technology)	2026–
	Rishabh Garg (California Institute of Technology)	2025–
	Arya Sorate (Indian Institute of Technology, Kanpur)	2024–2025
	Pulkit Gupta (Indian Institute of Technology, Indore now at KTH)	2023–
	Raghav Chari (University of Tennessee Knoxville now at NYU)	2021–2024
	Andrea Gebek (University of Bern, ETH Zürich)	2017–2018
	Bjorn Cotting (co-advised, University of Bern)	2018
	Master’s Theses	
	Cecilia Mancin (co-advised, Università d’Annunzio, Pescara, Italy, JPL)	2024–present
	Moritz Meyer zu Westram (co-advised, University of Bern, Switzerland)	2022–present
	Lukas Affolter (co-advised)	2019–2021
	Ishita Bhatnagar (co-advised, BITS Pilani)	2022–2023
	PhD and Postdocs Mentored	
	Dr. Athira Unni (Indian Institute of Astrophysics) on Doppler Shifted Transient Sodium Detection by KECK/HIRES (now at University of California Santa Cruz)	2019–
	Dr. Mayank Narang (Tata Institute for Fundamental Research) on Radio-Loud Exoplanet-Exomoon Survey (now at Jet Propulsion Laboratory)	2020–
	Dr. Shane Carberry-Mogan (New York University) on Callisto’s Atmosphere: First Evidence for H ₂ and Constraints on H ₂ O (now at KTH Stockholm)	2018–
SERVICE & LEADERSHIP	Referee, Springer-Verlag	2021–present
	Nature	
	Referee, American Astronomical Society	2018–present
	The Astrophysical Journal, The Planetary Science Journal, Publications of the Astronomical Society of the Pacific	
	Referee, American Geophysical Union	2018–present
	Geophysical Research Letters	
	Referee, ESO European Southern Observatory	2023–present
	Yuk L Yung Lunch Seminar Chair, Caltech	2024–
	Geological and Planetary Sciences	
	James Webb Space Telescope Panel (Cycle 5)	2026
	Volcanic Worlds Chair (Rosaly Lopes JPL Group)	2022–2024
	Panelist, National Aeronautics and Space Administration Solar System Workings/Science Program (NASA/ROSES) Lunar Data Analysis Program	2018–present

SELECTED SYNERGISTIC ACTIVITIES

SPACE MISSIONS	Europa Clipper, Science Affiliate – MASPEX, UVS Instrument	2024–
	Io Sample Return, Prometheus, New Frontiers Concept, Co-I	2021–
	Large Interferometer for Exoplanets (LIFE)	2021–
	CHEOPS (CHaracterizing ExOPlanets Satellite)	2019–
	Europa Lander, NASA Flagship Mission Concept	2021–2023
	James Webb Space Telescope (JWST) Guest Observer	2021–
	JWST Cycle 1 #2084, #1952 – Is it raining lava in the evening on 55 Cancri e? JWST Cycle 2 – Probing volcanic outgassing of warm sub-Earth planet	
INSTRUCTOR	Selected Courses	
	California Institute of Technology, Pasadena, USA:	
	Astrobiology Ay/Ge 157 (Undergraduate)	2025, 2026–
	University of Bern, Bern, Switzerland:	
	Planet Formation & Evolution (Graduate)	2019–2023
INTERNATIONAL TEACHING	Indian Institute of Astrophysics, Raman Research Institute:	
	Introduction to Planetary Astrophysics	2019–
	Undergraduate Theses	
LANGUAGES	Gujarati	Native
	French	Fluent
	Hindi	Moderate
FEATURED MEDIA	Minutiae, A Novel by Roberta Kwok (forthcoming)	2026
	Lost in Curiosity, Roberta Kwok — Ch. Astronomy: A Moon on Fire	
	Scientific American	2025, 2021
	Have Astronomers Finally Found an Exomoon?; The Race to Find Alien Moons	
	Universe Fridays	
	“How far are we from finding exomoons and exorings”	2026
	The New York Times	2024–
	A Distant Planet May Host a Moon That’s Spewing a Volcanic Cloud	
	Jet Propulsion Laboratory NASA Press Release	2024
	Does Distant Planet Host Volcanic Moon Like Jupiter’s Io?	
	California Institute of Technology	2024
	National Geographic	2024
	Jupiter’s moon Io is a volcanic hellscape—and has been since the solar system began	
	The Planetary Society	2022
	Where are the moons that orbit exoplanets?	
	New Scientist	2019
	We may have seen signs of an exomoon spewing out volcanic gas	
	CNN	2019
	Scientists may have found a fiery exomoon that’s like a volcanic planet from ‘Star Wars’	
	Centauri Dreams	2019
	Europa’s Oxygen and Aerobic Life	
	The Universe (PBS/NOVA) – BBC Studios	2020
	*Mt. Etna * Filming canceled due to COVID-19 Pandemic	

PUBLIC OUTREACH & EDUCATION	Caltech Astronomy Club	2025–
	Indian Planetary Society, Gujarat, India	2018–present
	Astronomy on Tap Science Lecturer	2018–present
	Bern, Lausanne, Switzerland; Pasadena, California	
	Telescope Operator & Educator	2011–2014
	McCormick & Morehead Observatories, UVA & UNC	
	Planetarium Educator	2011–2012
	Morehead Planetarium, Chapel Hill, North Carolina	
	Dark Skies Bright Kids, Charlottesville, Virginia	2012–2014
	Staff Writer Carolina Scientific, UNC	2008–2012
	Mathematics Instructor Akanksha Foundation, Maharashtra, India	2007
	Science Magazine Finalist (Physics Top 3)	2017
	Dance Your PhD Competition, Paris, France	
	Founder/Creator	
	Space Panga: Folk Dance & Space Science	2017–
	Cafe Astro Parisien, Paris, France	2016–present