

***Dr. Murthy S. Gudipati******Senior Research Scientist***

Jet Propulsion Laboratory, California Institute of Technology

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E-mail: gudipati@jpl.nasa.gov ; murthy.s.gudipati@gmail.comURL: <http://science.jpl.nasa.gov/people/Gudipati>**Biography**

Born and raised in southern India, Dr. Murthy Gudipati went to several schools in rural villages and an urban college, before receiving M.Sc. (1981) at the University of Hyderabad, India, and Ph.D. (1987) at the Indian Institute of Science, Bangalore, India. After a 3-year post-doctoral work at the University of Texas at Austin, where Murthy was introduced to low-temperature physics and chemistry for the first time, he joined University of Cologne, Germany in 1990, where he was awarded Habilitation in Physical Chemistry (tenure) in late 1998. In 2007, Dr. Gudipati joined NASA's Jet Propulsion Laboratory, where he studies the evolution of ices in the universe. Dr. Gudipati is presently a Senior Research Scientist at JPL. Dr. Gudipati published over 100 peer-reviewed articles, wrote several review articles, and co-edited one book. He is also a PI on several current and previous NASA funded projects. Dr. Gudipati is a member of American Astronomical Society (AAS), and its sub-divisions DPS and LAD.

Education

- 1998: Habilitation in Physical Chemistry – University of Cologne, Germany.
1995 – 1998: German Science Foundation “Habilitation Fellow”.
1990 – 1994: Research Associate – University of Cologne, Germany.
1986 – 1989: Post-Doctoral Affiliation – University of Texas at Austin
1981 – 1986: Ph.D. (Chemistry, 1987) – Indian Institute of Science, Bangalore, India.

Professional Experience

Dr. Gudipati is actively involved with the NASA Europa Clipper Mission since 2014 as a Co-I and Investigation Scientist. He was a science associate with the ESA/NASA Rosetta mission to comet 67P/Churyumov-Gerasimenko. Murthy is passionate about cryogenic comet sample return mission to happen one day in the future. He has been working on mission concepts to bring back deeper parts of a comet's nucleus at a very low temperature, which could hold the secrets of our early solar system as well as the molecular building blocks of life.

Visiting Positions

- NASA Ames Research Center, California, USA (2000)
- Institute of Experimental Physics, Free University Berlin, Germany (1998)
- Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany (1995)
- Adjunct faculty at the Indian Institute of Science, Bengaluru, India (2022 - present)
- Visiting professor at NISER, Bhubaneswar (2021 - present).

Community Service

- ❖ Past Chair (2023-2024); Chair (2021-2022); Vice-Chair (2019-2020) Laboratory Astrophysics Division (LAD) of the American Astronomical Society (AAS).
- ❖ Chair (since 2020) Project Advisory Board, Europlanet 2024 Research Infrastructure.
- ❖ Editor-in-Chief: Earth Moon and Planets (Springer) January 2009 – March 2020.
- ❖ Member of the Working Group for Laboratory Astrophysics (WGLA) of American Astronomical Society (AAS) 2009 - 2012.
- ❖ International Steering Committee Member of the Gordon Research Conferences on “Physics and Chemistry of Matrix-Isolated Species” 2003 – 2011

- ❖ Member of the International Organizing Committee: International Conferences on Low Temperature Chemistry (ICLTC) 2003 – 2011
- ❖ Founding Member, Member Board of Directors, and present Co-Chair “Indian Institute of Science Alumni Association of North America” 2007 – Present

Awards

- 2014 Mariner Bonus Award
2002 NASA Group Achievement Award
1995 German Science Foundation Habilitation Fellowship
1987 Indian Institute of Science Best Thesis Award (Guha Medal)

Murthy’s Education Philosophy:

Murthy is convinced that education is the only way to help change the world and that the first few years (K-6) are the most important formative years. He enjoys visiting local K-6 schools occasionally and talking to the children about science. Anyone interested in having him visit their school could contact him directly.

Teaching Interests: Astrochemistry, Astrobiology, Photochemistry, Radiation Chemistry, Planetary Sciences, Space Instrumentation, Astrophysics, and Origin of Life.

Advisor Role: Directed research of several Ph.D. and undergraduate students during the tenure in Germany and continued at JPL as a Co-advisor within the USA and from abroad through national and international collaborations, in addition to several postdoctoral coworkers.

Dr. Gudipati has given several interviews aimed at the early career researchers. Most of these interviews are available publicly on the internet. A few of those links are given below.

<https://www.youtube.com/watch?v=lEnnll0WdUs>

<https://www.youtube.com/watch?v=F0NT6jU7y20>