



PROFILE

I have been working extensively with satellite data of Martian atmosphere. During my doctoral studies, I gained experience in data modelling and statistical investigations. I hold keen interest in enhancing my skills and knowledge based on data analytics background for studying varied datasets. I have participated in several outreach programs in which I visited schools and universities to explain scientific experiments and popularize science among young students.

DATE OF BIRTH:

31 October, 1992

GENDER:

Female

MARITAL STATUS:

Married

LANGUAGES KNOWN:

English, Hindi, Bengali

NATIONALITY:

Indian

CONTACT

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Researchgate:

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HOBBIES

Dancing, Doodling, Embroidery

SHEFALI UTTAM

PhD in Planetary Science

EDUCATION

PhD in Physics

IIT Gandhinagar, India

Physical Research Laboratory, Ahmedabad, India

2015 - 2021

Title of dissertation: **An investigation of Martian dust devil characteristics**

Master in Sciences with specialization in Physics

IIT Guwahati, India

2013 - 2015

GPA 85.7%

Bachelor in Sciences with specialization in Physics

West Bengal State University, India

2010 - 2013

GPA 71.5%

WORK EXPERIENCE

Postdoctoral Fellow

Physical Research Laboratory, Ahmedabad, India

2020 - 2022

Data analysis and studying mesoscale data model to study the effect of dust on atmospheric circulations on Mars

SKILLS

Data Analysis	85%
Knowledge of MATLAB, C, Mathematica, Excel	80%
Knowledge of Python, SQL	40%
Science Outreach and communication	80%

AWARDS

Graduate Aptitude Test in Engineering – AIR 795

National Eligibility Test – AIR 84

PUBLICATIONS

Uttam, S., Singh, D., & Sheel, V. (2020). Tangential winds of a vortex system in a planetary surface layer. *Journal of Earth System Science*, 129(1), 2. Doi: 10.1007/s12040-019-1268-5.

Uttam, S., Sheel, V., Singh, D., Newman, C. E., & Lemmon, M. T. (2022). Characteristics of convective vortices and dust devils at gale crater on Mars during MY33. *Planetary and Space Science*, 213, 105430. Doi: 10.1016/j.pss.2022.105430.

Sheel, V., Uttam, S., & Mishra, S. K. (2021). Numerical simulation of dust lifting within a steady state dust devil. *Journal of Geophysical Research: Planets*, 126(11), e2021JE006835. Doi: 10.1029/2021JE006835.

Singh, D., and Uttam, S. (2022). Thermal inertia at the MSL and InSight mission sites on Mars. *Earth and Planetary Physics*, 6(1), 1–10. Doi: 10.26464/epp202200.

Uttam, S., Sheel, V., & Mishra, S. K. (2022). Electric Field Development Within a Dust Devil on Mars. *LPI Contributions*, 2678, 1782.

CONFERENCES

Poster presentation

"Dust lifting mechanisms on Mars" in Brain Storming Session on Vision and Explorations for Planetary Sciences in Decades 2020-2060 held during 8th – 10th November 2017.

"Characteristics of convective vortices and dust devils identified using MSL data" in National Space Science Symposium (NSSS) – 2019 held during 29th – 31st January 2019.

"Numerical simulation of dust lifting within a steady state dust devil" in Asia Oceania Geosciences Society 16th Annual Meeting (AOGS) – 2019 held during 28th July – 2nd August 2019.

"Dust distribution within a vortex and its significance for Mars" in Indian Planetary Science Conference (IPSC) – 2021 held during 25th – 26th February 2021.

"Mesoscale Meteorology of the Martian Atmosphere" in National Space Science Symposium (NSSS) – 2022 held during 31st Jan – 3rd February 2022.

Oral Presentation

"Tangential winds of a vortex system in a planetary surface layer" in Indian Planetary Science Conference (IPSC) – 2020 held during 19th – 21st February 2020.

"The Martian dust cycle: Understanding dust devils" in National Space Science Symposium (NSSS) – 2022 held during 31st Jan – 3rd February 2022.

"Regional variations in Martian meteorology" in Indian Planetary Science Conference (IPSC) – 2022 held during 14th – 16th March 2022.