

Tanya Harrison

Fellow at Outer Space Institute

Vancouver, BC, CA

Professional Martian who has worked on rocks and robots on the Red Planet.

Biography

Professional Martian? Dr. Tanya Harrison has worked as a scientist and mission operations specialist on multiple NASA missions to Mars, including the Opportunity, Curiosity, and Perseverance rovers, and the Mars Reconnaissance Orbiter. Bridging the worlds of Mars and Earth, as well as academia and industry, she has worked as the Director of Science for Impact at Planet Labs and the Director of Research for Arizona State University's NewSpace Initiative. She is currently a Fellow of the University of British Columbia's Outer Space Institute and the Aurelia Institute. As a highly respected expert in the field, Tanya has made numerous TV appearances, including on National Geographic and The Weather Channel, and has written on space-related topics for outlets including Slate, Canada's The Globe and Mail, the Houston Chronicle, and Astronomy magazine. Her first non-academic book, For All Humankind (2019, Mango Publishing) highlights international memories of the day of the Apollo 11 Moon landing and made the #1 release on Amazon's Aeronautics and Astronautics book list. Committed to fostering the next generation of space professionals, Tanya is active in mentorship, education, and outreach initiatives. She serves on the Board of Advisors for Explore Mars and Students for the Exploration and Development of Space (SEDS), and the Board of Directors for the American Geophysical Union. She is also a co-founder of the Zed Factor Fellowship, an initiative to increase diversity, inclusion, and accessibility in the aerospace sector through paid internship opportunities, mentorship, and community engagement for those from historically excluded backgrounds in STEM. Tanya holds a Ph.D. in Geology with a Specialization in Planetary Science and Exploration from the University of Western Ontario, a Masters in Earth and Environmental Sciences from Wesleyan University, and a B.Sc. in Astronomy and Physics from the University of Washington. Her honours include two NASA Group Achievement Awards, the Amelia Earhart Fellowship for women in aerospace and the Vanier Canada Graduate Scholarship, Canada's most prestigious doctoral award. She was also named one of Via Satellite's Young People to Watch of 2018, and a Future Space Leader in 2019. You can find her prolifically tweeting about all things Mars, space, and Canada on Twitter as @tanyaofmars.

Availability

Keynote, Moderator, Panelist, Workshop, Host/MC, Author Appearance

Industry Expertise

Research, Aerospace, Education/Learning, Women

Areas of Expertise

Space and Astrophysics, Climate Change, Satellite Based Remote Sensing of the Earth/atmosphere System, Earth Science , Women in STEM Careers, Women in STEM, Women in Science and Engineering, Women in Science, Astronomy, Landslides, Glaciology, Remote Sensing, Geology, Mission Operations, Space Exploration, Mars, Earth Sciences, Satellite Design, Space

Affiliations

Owner, Professional Martian LLC, Board of Advisors, Students for the Exploration and Development of Space (SEDS), Board of Advisors, Explore Mars, Partner, NASA Harvest, Board of Directors, American Geophysical Union

Sample Talks

Cloudy With a Chance of Dust Storms

Mars is far from a dead planet! It has quite active weather, including massive dust storms, wispy water ice clouds, and changes throughout the seasons. This talk covers the weird and wonderful weather of the Red Planet.

Event Appearances

What Does 'New Space' Really Mean? - Panelist

Via Satellite's ON ORBIT Podcast LIVE

AI & Robotics for In-Orbit Satellite Servicing - Moderator

Satellite 2020

What's Up on Mars? - Invited Talk

NASA Kennedy Space Center Visitor Complex

More Than Martians

Ignite@AGU

Finding Your (Non-Linear) Career Path - OPENING KEYNOTE

SpaceVision 2019

Science Applications of Planet Data - Invited Talk

NASA Goddard Engineering Colloquium

What's Up on Mars? - Invited Talk

Phoenix Public Library

Roving Robots on the Red Planet - Invited Talk

Amazon re:MARS

Mars Exploration - Panelist
VivaTech 2019

Emigration of Life from Earth - Panelist
Breakthrough Discuss

Cloudy With a Chance of Dust Storms - Invited Talk
Rose City Astronomers

Effective Science Communication Strategies in the Digital World - KEYNOTE
University of Toronto Scarborough Graduate Career Day

Surviving Mars - Panelist
PAX West

What's Up on Mars? - Invited Talk
Royal Astronomical Society of Canada Chapter Meeting

Cloudy With a Chance of Dust Storms - Invited Talk
Ontario Science Centre

The Current State of Water on Mars - KEYNOTE
Royal Astronomical Society of Canada General Assembly

Photographing the Galaxy and Citizen Science
TEDxASU

More Than Martians - Invited Talk
SGx

The Emerging Role of Commercial Spaceflight in Earth Remote Sensing Science
Canadian SmallSat Summit

Cloudy With a Chance of Dust Storms - KEYNOTE
Steamboat Weather Summit

The Past and Present of Water on Mars - Invited Talk
Royal Astronomical Society of Canada Chapter Meeting

Mars Missions Roundup - Invited Talk
Idaho Star Party

The Mars Reconnaissance Orbiter and the Curiosity Rover: Perspectives on Whether Mars is Habitable - KEYNOTE
Nuclear and Space Radiation Effects Conference

The Importance of Science Outreach - Invited Talk
March for Science

Mars Reconnaissance Orbiter Mission Operations - Invited Talk
Planet

Gullies on Mars - Invited Talk
University of Texas at El Paso Departmental Colloquium Presentation

Cloudy With a Chance of Dust Storms - Invited Talk
Lucasfilm

Finding Your Career Path - KEYNOTE
Students for the Exploration and Development of Space (SEDS) Canada Ascension

Gullies on Mars - Invited Talk
Zonta International Meeting

Invited Speaker
University of Western Ontario Staff and Leaders Conference

Invited Speaker
Royal Astronomical Society of Canada (RASC) Meeting

Invited Speaker
University of Western Ontario Curiosity Rover Landing Event

Invited Speaker
San Diego Astronomy Association Meeting

Invited Speaker
CascadiaCon

Invited Speaker
VikingCon

Invited Panelist
Norwescon 22

Education

University of Western Ontario
Ph.D. Geology (specialization in Planetary Science and Exploration)

Wesleyan University
Master of Arts Earth and Environmental Sciences

University of Washington
Bachelor of Science Astronomy and Physics (Dual Major)

Accomplishments

Via Satellite's Young People to Watch List

<http://interactive.satellitetoday.com/via-satellites-2018-young-people-to-watch-list/>

Geological Society of America Paul Pellas-Ryder Award

Award given for the best student paper in planetary science published in 2015

Amelia Earhart Fellowship

2014 and 2015; Ph.D. fellowship for women in aerospace fields (2-time awardee)

Geological Society of America On to the Future Award

2014

University of Western Ontario Research Western Award

2014

Vanier Canada Graduate Scholarship

2014; Canada's most prestigious doctoral scholarship

NASA Group Achievement Award

2013; Presented to the Mars Science Laboratory Mast Camera, Mars Hand Lens Imager, and Mars Descent Imager instruments team

Lunar and Planetary Institute Career Development Award

2013

NSERC CREATE Technologies and Techniques for Space Exploration Ph.D. Fellowship

2012

NSERC CREATE Canadian Astrobiology Training Program Ph.D. Fellowship

2012

University of Western Ontario Graduate Research Scholarship

2012-2014

NASA Group Achievement Award

2011; Presented to the Mars Reconnaissance Orbiter Context Camera and Mars Color Imager science team

NASA Connecticut Space Grant Scholar

2008

Washington Promise Scholar

2003

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