

**INSIGHT'S DIVERSITY AND INCLUSION WORKING GROUP** A. G. Marusiak<sup>1</sup>, M. Baker<sup>2</sup>, C. Beghein<sup>3</sup>, I. J. Daubar<sup>4</sup>, B. Fernando<sup>5</sup>, J.C.E Irving<sup>6</sup>, C. L. Johnson<sup>7,8</sup>, P. Morgan<sup>9</sup>, C. Newman<sup>10</sup>, M.P. Panning<sup>1</sup>, S. Smrekar<sup>1</sup>, S. Stanley<sup>11</sup>, <sup>1</sup>Jet Propulsion Laboratory, California Institute of Technology, Pasadena CA, marusiak@jpl.nasa.gov, <sup>2</sup>Center for Earth & Planetary Studies, National Air & Space Museum, Smithsonian Institution, Washington DC, <sup>3</sup>University of California Los Angeles, Los Angeles CA <sup>4</sup>Brown University, Providence, RI <sup>5</sup>Christ Church College and Department of Physics, Oxford University <sup>6</sup>School of Earth Sciences, University of Bristol, <sup>7</sup>Planetary Science Institute, Tucson, AZ CO <sup>8</sup>University of British Columbia, Vancouver, BC <sup>9</sup>Colorado Geological Survey, Colorado School of Mines, Golden, CO <sup>10</sup>AOELIS Research, Chandler AZ <sup>11</sup>Morton K. Blaustein Department of Earth and Planetary Sciences, Johns Hopkins University, Baltimore MD

**Introduction:** The InSight (INterior exploration using Seismic Investigations, Geodesy, and Heat Transport) mission established the Diversity and Inclusion Working Group (DIWG) in July 2020 to acknowledge and address long-standing inequities and promote broader scientific engagement while improving the working environment of its team members. The group meets monthly and any InSight science team member is welcome to join. The DIWG group includes a diverse range of career stages, institutions, and nationalities. This abstract describes the major initiatives pursued by the InSight DIWG since its inception.

**Primary Goals:** The DIWG has three primary goals as outlined in the charter: 1) To create a safer, more inclusive, and more equitable environment for all members of the mission team through improved team structure and interactions, and implementation of policies that level the playing field. 2) To increase awareness amongst the team of the importance of diversity and inclusion by compiling and providing resources that individuals can use to learn, grow, and engage in new ways. 3) To maximize the mission impact by sharing our science, especially with traditionally under-served populations. The DIWG charter includes deliverables. Below we highlight several deliverables that have been completed since the establishment of the DIWG.

#### **Past and Ongoing DIWG initiatives:**

**Code of Conduct:** The InSight Code of Conduct is designed to supplement the Science Team's "Rules of the Road" document, which provides overarching guidance to team members to ensure orderly conduct on all mission-related matters. The goal of the Code of Conduct is to establish a clear set of expectations and define inappropriate behavior. InSight's Code of Conduct is based on similar efforts of other planetary science missions and recommendations put forth by experts [1,2]. The Code of Conduct benefits the team by outlining the expectations for behavior in order to maintain a safe and inclusive environment. The Code of Conduct has officially been accepted by mission leadership and will be sent to the team as new terms to the Rules of the Road. The science team is explicitly bound to the Rules of the Road.

**Working Group Leadership:** The DIWG is led by two chairs, one representing early career stages and the other representing more senior career stages. This ensures early career scientists are involved, represented, and have an active role, while the senior career Chair may have more experience and authority for implementing the goals and objectives of the group. The chairs are rotated among the group members to allow for a diversity of voices to be heard and to give multiple team members opportunities for leadership experience. The DIWG has successfully advocated that this strategy for working group leadership be adopted by other working groups. DIWG chairs are included in regular mission leadership telecons, discussions, just as chairs of other scientific working groups.

**Research spotlights:** In an effort to share InSight science with broad audiences, the DIWG produces regular research spotlights for posting on public NASA pages and through social media. All mission team members are eligible for a spotlight, but particular focus is given to research being conducted by individuals who identify with underrepresented groups in STEM. This benefits not only the team members from underrepresented groups who are highlighted, but also the next generation of planetary scientists and engineers who may identify with someone like them represented on a science team.

**Team meetings:** The team meetings allow members of the science team to share their recent findings and allow for important collaboration across the team. The DIWG therefore strives to make sure team meetings are inclusive and accessible to all team members. The DIWG has organized activities to make the team meetings more useful and inclusive. A simple, but effective action has been to ensure acronyms in meetings are defined and explained; as the copious use of acronyms in planetary missions is a barrier to newcomers. As team meetings have been virtual since Summer 2020 and will now likely be hybrid, we discuss ways to ensure participants are able to benefit from the meetings. We have invited external speakers such as Christina Richey who spoke on the importance and benefits of having a diverse mission team to achieve science goals and objectives. Janet Vertesi, an author on mission team dynamics [3, 4], also spoke on how the

organization and hierarchy of the science team can affect science returns. In 2021, the DIWG began running the InSightSeers program. This program allows students and early career scientists who do not have experience of, or access to, mission work to attend science team meetings. For details on this program please see the abstract submitted by Daubar et al. [5]. Lastly, the DIWG hosts social activities aimed at team building. For example, the DIWG leveraged the team working from home to have a “Pets of InSight” activity where team members showcased their cats, dogs, horses, turtles, and other pets. Other social activities involved creating InSight-related memes and gifs, and sharing artistic InSight-related media such as art, graphics, and music.

**Outlook and Challenges:** The DIWG has faced some challenges and we discuss some of them in an effort to help other missions with their DEI efforts. Other missions would benefit from establishing a DIWG as early as possible. Although we try to ensure the InSightSeers have diverse backgrounds, the participants are not members of the science team and thus does not increase team diversity. The InSightSeers program aims to reach underrepresented minorities and institutions through targeted advertising. In addition, the selection process uses best practices to promote equity and inclusion. When writing a Code of Conduct which would apply across all nations and institutions represented on the team, the establishment of a single ‘norm’ of acceptable behavior was more challenging than it otherwise might have been, due to differences in how equality and diversity are discussed across countries. We were able to overcome this through honest and open inter-team discussion.

**Future work:** The DIWG aims to continue many of the current practices. The next InSight Science Team meeting, just prior to LPSC 2022, is likely to be hybrid, which will present new logistical challenges and opportunities for outreach for the DIWG [6]. The Code of Conduct and Rules of the Road will be amended as necessary. The team meetings will continue to invite outside speakers on diversity, equity, and inclusion, and the InSightSeers program will continue.

**Summary:** The InSight DIWG aims to create and maintain an inclusive and equitable environment. Since the inception of the DIWG in July 2020, we have written a code of conduct, created research highlights of our team members, aimed to improve team meetings, and established and supported the InSightSeers program. We aim to continue and improve our efforts for the remainder of the mission.

**Acknowledgments:** A portion of the work was supported by the InSight Project at the Jet Propulsion Laboratory (JPL), California Institute of Technology, under a contract with the National Aeronautics and Space Administration (NASA).

**References:** [1] S. Diniega, et al. *Bulletin of the American Astronomical Society* (2021), vol. 53, p. 448. [2] A. Dryden, Codes of Conduct 101 + FAQ (2014), (available at <https://www.ashedryden.com/blog/codes-of-conduct-101-faq#coc101whatis>). [3] J. Vertesi, *Seeing like a rover: How robots, teams, and images craft knowledge of mars* (University of Chicago Press, 2015). [4] J. Vertesi, *Shaping science: Organizations, decisions, and culture on NASA’s teams* (University of Chicago Press, 2020). [5] I. J. Daubar et al. (2022) LPSC, this conference [6] Skiles, M. et al. (2021). Conference demographics and footprint changed by virtual platforms. *Nature Sustainability*. <https://doi.org/10.1038/s41893-021-00823-2>