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Higher Education Teaching and Research using NASA's Solar System Treks

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NASA's Solar System Treks Project (SSTP) online portals provide web-based suites of interactive visualization and analysis tools to enable mission planners, planetary scientists, students, and the general public to access mapped data products from past and current missions for a growing number of planetary bodies.

Solar System Treks portals are being used for site selection and analysis by NASA and its international and commercial partners supporting upcoming missions. At the same time, the portals offer great inspirational and educational benefits for science, technology, engineering, art, and math (STEAM) education and public engagement, providing access to data from a wide range of instruments aboard a variety of past and current missions. As a component of NASA's Science Activation Infrastructure, they are available as resources for NASA STEAM programs, and to the greater STEAM community. As new missions are planned to a variety of planetary bodies, these tools facilitate teaching and learning of the missions and engage the public in the process of identifying and selecting where these missions will land.

Today, 11 web portals in the program are available to the public. This list includes portals for the Moon; the planets Mercury, Venus, and Mars; the asteroids Bennu, Ryugu, Vesta, and Ceres; and the outer moons Titan and Europa. The Icy Moons Trek portal features seven of Saturn's smaller icy moons. All of the portals are unified under a project home site with supporting engagement content. These web-based portals are free resources and publicly available. They are tools that facilitate and benefit teaching and learning within higher education community.

This presentation for EGU will detail and share examples of the project's STEAM utilization, and preview future developments, enhancements and applications.

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