

Universities' Culture
of Sexual Harassment

Radon Tracers
at Mount Etna

Peer Review's
Psychological Potholes

CROWDSOURCING STREAMFLOW DATA



Touring the Solar System with Science Art

Look around during any science presentation and you'll see scientists of all career stages jotting down notes. This is especially true at conferences, where the hundreds or thousands of presentations can become one big blur after a week of sleep deprivation and science.

James Tuttle Keane's approach to taking notes at conferences is, well, a bit different than most. Keane is a postdoctoral scholar at the Joint Center for Planetary Astronomy at the California Institute of Technology in Pasadena. He's also a scientific illustrator. During conferences, Keane takes notes by creating elaborate sketches of presentations he attends. He outlines them live during each talk and then details and colors them later.

"I've always taken graphical notes because I'm a very visual person and I like to sketch," Keane said. "They started out as just black-and-white pen sketches. Then I started adding color, and now they're very detailed and take a lot of time and are very

colorful. They've evolved and become more artistic."

In his sketches, Keane tries to capture a few of the key points of a presentation, but from his own point of view. "I want them to have my perspective, my flavor," he said. "I want them to either show something that wasn't shown explicitly or say something in a different way."

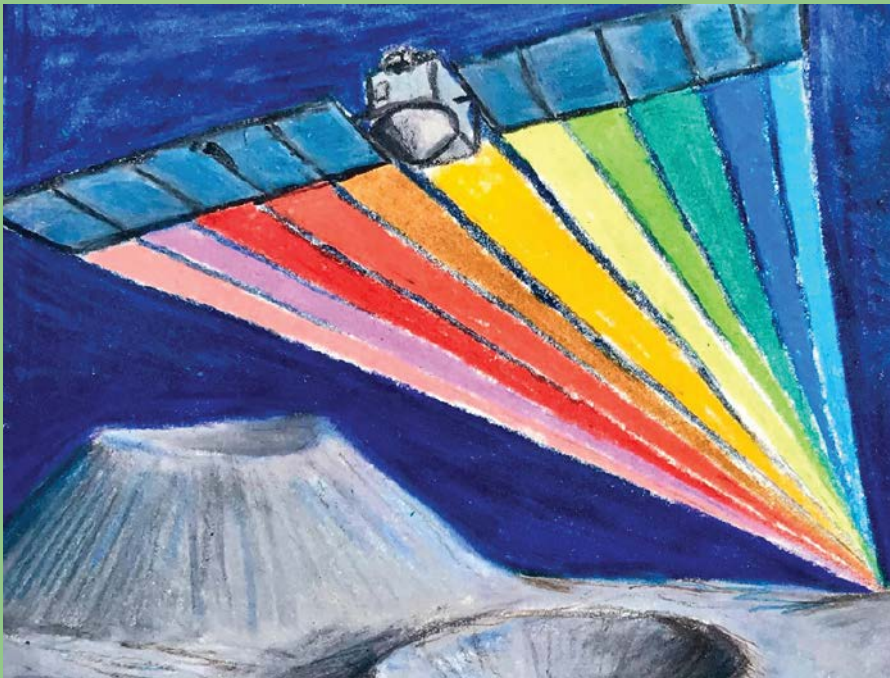
Keane started his conference live sketching in 2014, and the science community's response, he said, has been overwhelmingly positive.

"It's been exciting to watch this become more of a thing," he said. "I think that it's useful to show how you can fold art into science. I think that it's been beneficial to everyone."

Eos first noticed Keane during the 49th Lunar and Planetary Science Conference (LPSC) in Texas earlier this year. All told, he created around 20 different sketches from some of the talks he attended, with topics ranging from Mercury to Pluto and beyond.

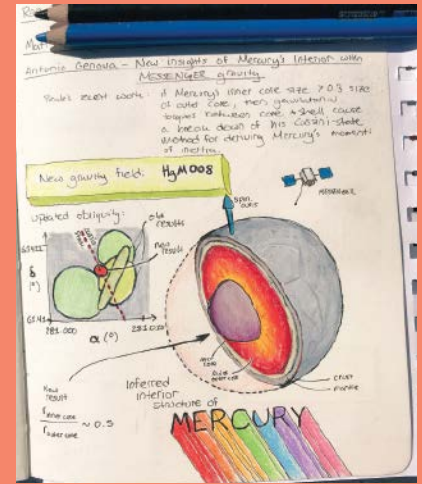
Take a tour of the solar system with some of his (and our) favorite illustrations from that conference.

Dawn Is Flying High in the Asteroid Belt



The Dawn spacecraft soars above the cratered surface of Ceres in this hand-drawn illustration. Credit: James Tuttle Keane, Caltech

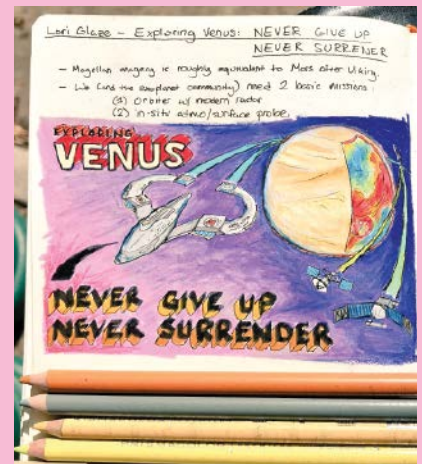
What Does Mercury Look Like Inside? Ask Its Gravity



Gravity field measurements taken by NASA's MESSENGER spacecraft gave scientists a peek at Mercury's solid inner core. Credit: James Tuttle Keane, Caltech

By Grabthar's Hammer, Go Back to Venus!

This sketch is Keane's favorite from the conference.



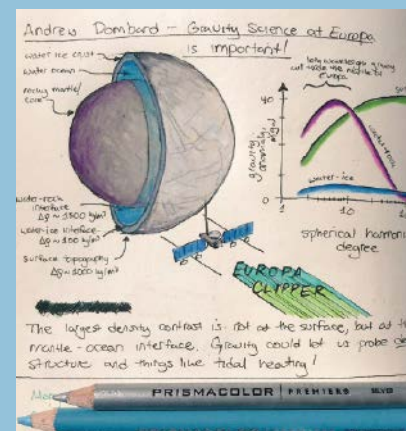
Planetary scientists aren't giving up, or surrendering, their goal of future missions to Earth's sister planet. Credit: James Tuttle Keane, Caltech

Our Moon Might Soon Receive Some Visitors from China



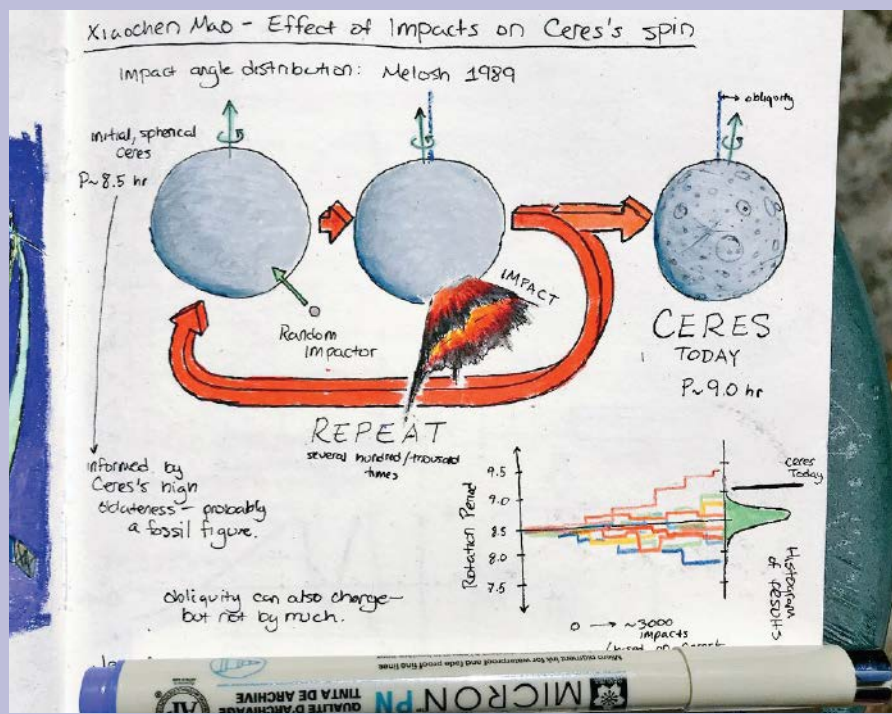
China has plans in the works to explore the Moon. Credit: James Tuttle Keane, Caltech

Don't Forget Europa's Rocky Center



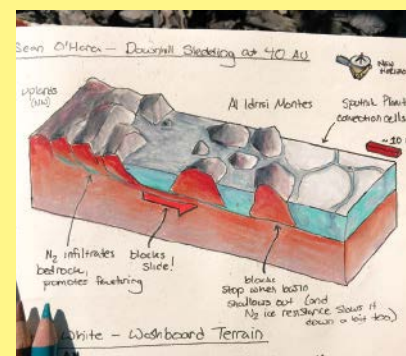
Hype may surround Europa's subsurface ocean, but the rocky mantle has science mysteries to unlock, too. Credit: James Tuttle Keane, Caltech

Ceres Was Getting Dizzy...



Don't judge Ceres for its minor spin-down. You'd move more slowly, too, if asteroids kept hitting you in the head. Credit: James Tuttle Keane, Caltech

Pluto's Chaotic Surface Is Really Just an Icy Slip 'n Slide



Chaos reigns when Pluto's water ice bedrock fractures, slides, and gets hollowed out by frozen nitrogen. Credit: James Tuttle Keane, Caltech

Since LPSC, Keane has been busy sketching aspects of the Mars InSight mission, New Horizons, even recent papers about Venus—you can see those sketches on his Twitter account (@jtuttlekeane). Keep an eye out for more of Keane's work during the New Horizons flyby of Ultima Thule on New Year's Eve 2019.

By **Kimberly M. S. Cartier** (@AstroKimCartier), Staff Writer