

# David Martinez's Personalized Newsletter

Date: 2025-03-22

## Highlights:

- [NASA Reveals Semifinalists of Power to Explore Challenge](#) - NASA selected 45 student essays as semifinalists of its 2024-2025 Power to Explore Challenge. The competition asked students to learn about radioisotope power systems. RPS have enabled many spacecraft to explore a variety of these moons.
- [For climate and livelihoods, Africa bets big on solar mini-grids](#) - Two villages in Nigeria's deep south had never been connected to the national electricity grid. When a renewable-energy company proposed installing a solar 'mini-grid' in their community, the villagers scoffed at the idea of the sun powering their homes. "We didn't"
- [CAS Discovery and Foresight](#) - Convergent Aeronautics Solutions (CAS) Discovery identifies problems worth solving for the benefit of all. Discovery builds new innovation tools and methods, a workforce adept at innovation methods.

## Other

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- [3D Printing: Saving Weight and Space at Launch](#) - Research on the International Space Station is helping to develop the capability to address multiple needs using 3D printing. The ability to manufacture things in space is especially important in planning for missions to the Moon and Mars.
- [Making Ripples](#) - A dolphin swims through the water in the Launch Complex 39 Area turn basin at NASA's Kennedy Space Center in Florida. Dolphins are a frequent sight in the rivers around Kennedy, which shares a boundary with the Merritt Island Wildlife Nature Refuge.
- [Here's the secret to how Firefly was able to nail its first lunar landing](#) - \* Firefly Aerospace's Blue Ghost science station accomplished a lot on the Moon in the last two weeks. Its instruments drilled into the Moon's surface, tested an extraterrestrial vacuum cleaner, and showed that future missions could use GPS navigation signals to navigate on the lunar surface.\*

## At

- [Researchers engineer bacteria to produce plastics](#) - Korean researchers have developed a bacterial strain that can make a useful polymer starting with nothing but glucose as fuel. The system is based on an enzyme that the bacteria use when they're facing unusual nutritional conditions.
- [NASA Astronauts to Answer Questions from Students in New York](#) - Students from Richmond Hill, New York, will have the chance to connect with NASA astronauts Anne McClain and Nichole Ayers. The event will be hosted by Richmond Hill High School, a New York City high school.

- [NASA to Launch Three Rockets from Alaska in Single Aurora Experiment](#) - Three NASA-funded rockets are set to launch from Poker Flat Research Range in Fairbanks, Alaska, in an experiment that seeks to reveal how auroral substorms affect the behavior and composition of Earth's far upper atmosphere. The experiment's outcome could upend a long-

## Physics

- [Physicists unlock another clue to brewing the perfect espresso](#) - Scientists from the University of Warsaw have gleaned insights into the underlying physics of channeling. They presented their preliminary findings at the American Physical Society's Global Physics Summit in Anaheim, California, this morning.