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Global Friendship Through Space Education

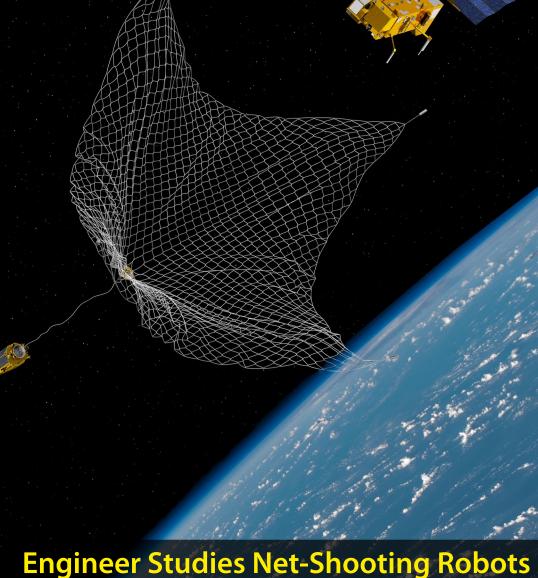
CONTENTS

3200 Phaethon Is Weirdly Comet-Like	
 Net-Shooting Robots For 	
Solving Space Debris Issue	
 Sights and Sounds of a Venus 	
Flyby	
Scientists Locate Likely Origin	
of Dinosaur-Killing Asteroid	
Astronomers Find 100 Black	
Holes In Palomar 5	•
Solar-Powered Moon Rovers	



3200 Phaethon Is Weirdly Comet-Like

Most meteors in annual showers have comets as their sources. But not December's Geminid meteors, whose source is a rocky body known as 3200 Phaethon. This object isn't icy, like a comet is. But it's known to brighten as it nears the sun, as comets do. And it has a tail. Plus, it spawns the Geminid meteor shower. On August 16, 2021, scientists with NASA's Jet Propulsion Laboratory in Pasadena, California, announced a new idea that might help explain Phaethon's comet-like 3200 behavior. Part of the answer might be sodium fizzing from the asteroid's surface.



That Corral Space Debris

University at Buffalo researcher Eleonora Botta studies how to prevent space debris from crashing into each other or from falling uncontrollably down to Earth. An assistant professor of aerospace engineering, she was recently awarded a \$175,000 National Science Foundation grant to examine how to best utilize robot tether systems to corral some of the 27,000 pieces of debris that NASA tracks.

Newsletter

Sights and Sounds of a Venus Flyby



ESA's Solar Orbiter and BepiColombo spacecraft made a historic Venus flyby earlier this week, passing by the planet within 33 hours of each other and capturing unique imagery and data during the encounter. The ESA/NASA Solar Orbiter spacecraft flew past Venus on 9 August at a distance of 7995 km, while the ESA/JAXA BepiColombo mission skimmed past at just 552 km from the planet's surface on 10 August. You may see or listen the sights and the sounds of Venus by clicking the yellow link.

Scientists Locate Likely Origin for the Dinosaur-Killing Asteroid

The asteroid credited with the extinction of the dinosaurs 66 million years ago is likely to have originated from the outer half of the solar system's main asteroid belt, according to new research by Southwest Research Institute (SwRI). After its sudden contact with Earth, the asteroid wiped out not only the dinosaurs, but around 75 percent of the planet's animal species. Researchers used computer models to analyse how asteroids are pulled from their orbit in different areas of the asteroid belt and drawn towards planets. Prior to crashing into Earth, the extinction-causing asteroid orbited the sun with others, in the main asteroid belt.



NASA's Ingenuity Helicopter Completes 12th Mars Flight



NASA's Ingenuity helicopter completed its 12th flight on Mars, officials said early Tuesday, as it scouts out the Martian terrain for the Perseverance land rover. The 4-pound autonomous aircraft flew over the South Seitah region of the Red Planet, traveling a total of 1,476 feet round trip at a height of nearly 33 feet for 169 seconds, NASA's Jet Propulsion Laboratory said via Twitter.

Newsletter

MarsDaily.com

The Perils of a Trip to Mars: Low Gravitation and High Radiation

Besides packing enough fuel and air and water and food for the seven-month-long journey to Mars, there are other luxuries we enjoy here on Earth that the spaceship will have to provide if we want to stay healthy during the long flight.

Earth's atmosphere and magnetic field protect us from harmful space radiation, but passengers bound for Mars will lose that protection. So, their spaceship would need to provide some kind of radiation shielding. The lack of gravity can also wreak havoc on the human body given enough time.











Avoid close contact with people who are sick.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Clean and disinfect frequently touched objects and surfaces.

Avoid touching your eyes, nose, and mouth.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.





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Astronomy Picture of the Day

Rings Around the Ring Nebula

Image Credit & Copyright: Hubble, Large Binocular Telescope, Subaru Telescope & Robert Gendler

The Ring Nebula (M57), is more complicated than it appears through a small telescope. The easily visible central ring is about one light-year across, but this remarkably deep exposure - a collaborative effort combining data from three different large telescopes - explores the looping filaments of glowing gas extending much farther from the nebula's central star. This composite image includes red light emitted by hydrogen as well as visible and infrared light. The Ring Nebula is an elongated planetary nebula, a type of nebula created when a Sun-like star evolves to throw off its outer atmosphere to become a white dwarf star. The Ring Nebula is about 2,500 light-years away toward the musical constellation Lyra.



Space Camp Turkey, Aegean Free Zone 35410 Gaziemir, Izmir / Turkey Phone : +90 232 252 35 00 Fax : +90 232 252 36 00 Email: info@spacecampturkey.com © 2020 - SPACE CAMP TURKEY / ALL RIGHTS RESERVED - An ESBAS Enterprise



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