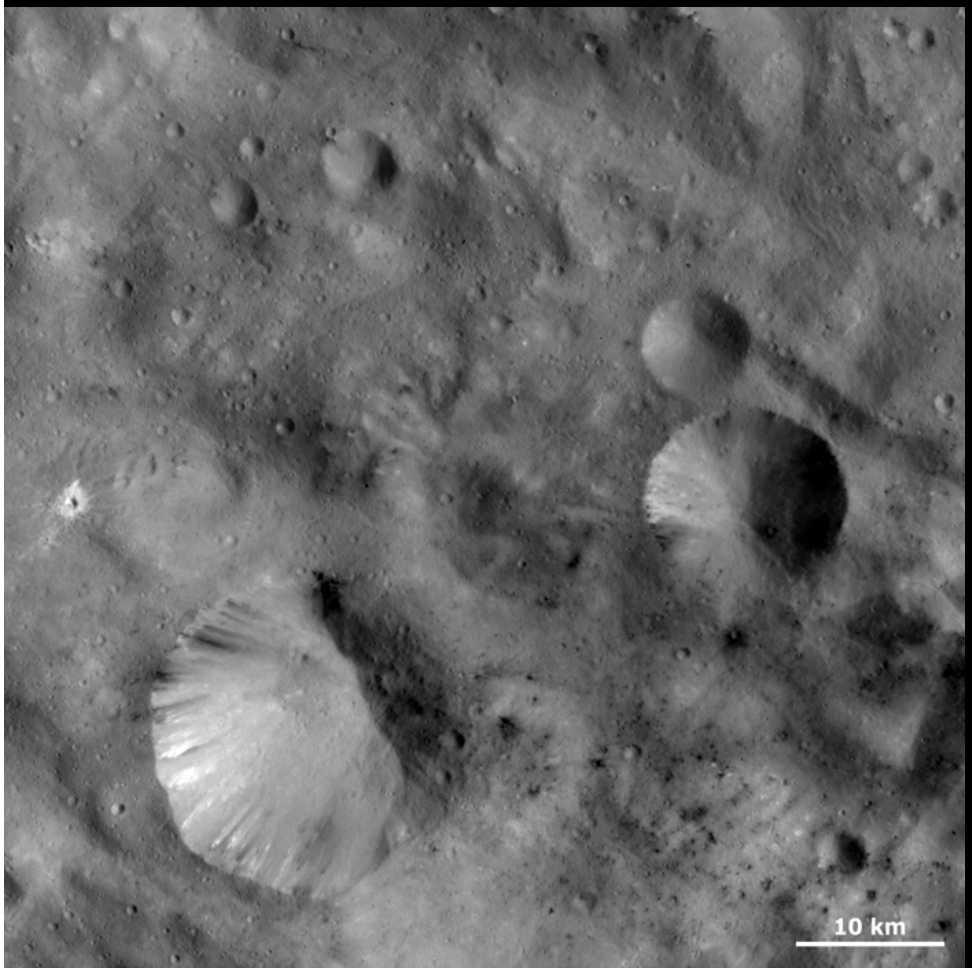
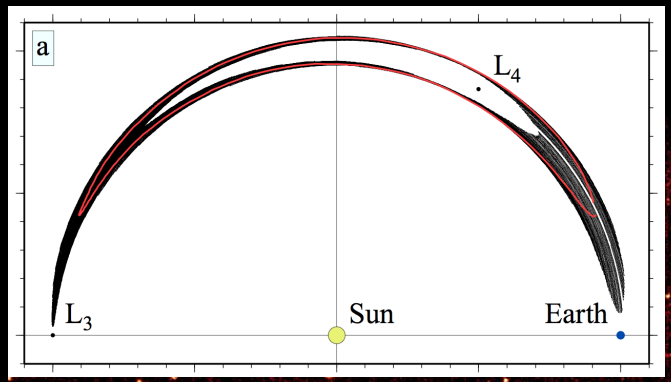
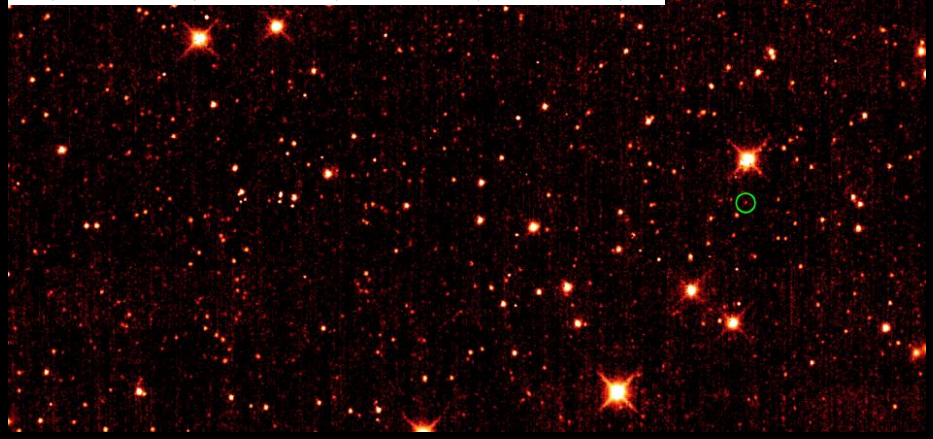


Small Bodies Science Highlight: Dawn at Vesta Reveals Varied Surface and Landslides!

Orbiting 700 km above the surface of the second largest asteroid, Vesta, Dawn shows evidence of stark compositional variations (bright and dark areas) and dramatic mass wasting processes where crater walls slump and avalanches transport mass over areas of the surface. Unlike much smaller asteroids previously visited by spacecraft, Vesta has sufficient gravity to drive geological processes more familiar on Earth!

Small Bodies Science Highlight: WISE Discovers First Earth Trojan Asteroid





The Wide-field Infrared Survey Explorer (WISE) has been an intrepid discoverer of asteroids and their characteristics. Among its discoveries is 2010 TK7, a few hundred meters in diameter, moving in a 'tadpole' orbit in a rotating reference frame where Earth's position is fixed. This is typical of a "Trojan" asteroid. These are very difficult to observe from Earth because they would be obscured in twilight and daytime. A substantial population of such asteroids could 'hide' in these orbits.

Low-inclination Earth Trojans would be potential targets for human exploration.