

# Cosmology/Astrophysics News

Solar Sail

December 2025 for Rose City Astronomers SIG

<http://101iq.com/RCA>



# Nature – December 4, 2025

- Still no sign of hypothetical sterile neutrino
  - <https://www.nature.com/articles/d41586-025-03726-w>
  - <https://www.nature.com/articles/s41586-025-09757-7>
  - <https://www.nature.com/articles/s41586-025-09739-9>
- Even in space, satellites photobomb telescopes
  - <https://www.nature.com/articles/d41586-025-03968-8>
  - <https://www.nature.com/articles/s41586-025-09759-5>
- Quarks in ‘exotic’ quartets prefer to stick together
  - <https://www.nature.com/articles/d41586-025-03591-7>
  - <https://www.nature.com/articles/s41586-025-09711-7>

# Science – December 4, 2025

- Putting the U in quantum
  - <https://www.science.org/content/article/100-years-quantum-mechanics-redefining-reality-us-center>
  - <https://www.science.org/doi/10.1126/science.aee3888>
  - <https://www.science.org/doi/10.1126/science.ady6092>
- Constraints on lepton number violation with the 2 tonne – year CUORE dataset
  - <https://www.science.org/doi/10.1126/science.adp6474>

# Nature – December 11, 2025

- No cosmology/astrophysics this issue

# Science – December 11, 2025

- Planet protector
  - <https://www.science.org/content/article/nasa-telescope-will-hunt-down-city-killer-asteroids>
- Deep mantle clues to Earth's watery beginning
  - <https://www.science.org/doi/10.1126/science.aed3351>
  - <https://www.science.org/doi/10.1126/science.adx5883>

# Nature – December 18-25, 2025

- Tony Tyson Telescope Pioneer – Van Rubin Observatory
  - <https://www.nature.com/articles/d41586-025-03840-9>
- Asteroid Bennu contains salts from ancient brine
  - <https://www.nature.com/articles/d41586-025-00084-5>
- Experiments reveal extreme water generation during planet formation
  - <https://www.nature.com/articles/s41586-025-09816-z>
- Titan's strong tidal dissipation precludes a subsurface ocean
  - <https://www.nature.com/articles/s41586-025-09818-x>

# Science – December 18, 2025

- An all-seeing eye on the sky – Vera Rubin Observatory
  - <https://www.science.org/content/article/breakthrough-2025>

# Science – January 1, 2026

- Sun's gravitational lens could reveal alien planets' surfaces
  - <https://doi.org/10.1126/science.aef0581>
- Two views of a rogue planet
  - <https://www.science.org/doi/10.1126/science.aed5209>
  - <https://www.science.org/doi/10.1126/science.adv9266>
- Spectroscopy: Local fields reveal atomic-scale nonadiabatic carrier-phonon dynamics
  - <https://www.science.org/doi/10.1126/science.aea1523>

# Miscellaneous

- I will post this monthly news possibly with zero or more videos and links to watch, as for example, these:
  - <https://www.youtube.com/watch?v=Qheuft0vntg>
  - <https://www.youtube.com/watch?v=e9xOMOTTW6U>
  - <https://www.youtube.com/watch?v=TigQRa5XzOk>
  - <https://www.youtube.com/watch?v=WeVGJr6h-CQ>