Uranus Orbiter Probe as a micro-Hz Gravitational Wave Detector

An example trajectory of the proposed mission to Uranus relative to the outer planets.



Left: The sensitivity to gravitational waves (GWs) that would result from Doppler tracking the Uranus Orbiter Probe (UOP) trajectory in the top right, over the course of its 10-year mission, using known technology. Sensitivities of the planned LISA mission and the operating Pulsar Timing Arrays (PTAS) are plotted for comparison. Tracking the Uranus mission fills in a new portion of the GW sky: the micro-HZ regime.