

Flyby of 2012 DA14

Preliminary Results

Asteroid 2012 DA14 very close approach: 15 feb. 2013, 20:10:06 UT

This exceptional sequence shows asteroid 2012 DA14, soon after its close approach at about 27500km above the Earth surface. At the imaging time, it was moving at the amazing rate of 2450"/min (0.7deg/min)! The robotic telescope was carefully tuned to track its rapidly changing apparent motion. Asteroid was only 20 degrees above the horizon.

A PlaneWave 17"+robotic PARAMOUNT ME+STL-6303E CCD were used. The tracking was done thanks to TheSkyX Pro + TPoint. Scale is about 1.8"/pixel.Images by Gianluca Masi- The Virtual Telescope Project, ceccano (FR) Italy - www.virtualtelescope.eu

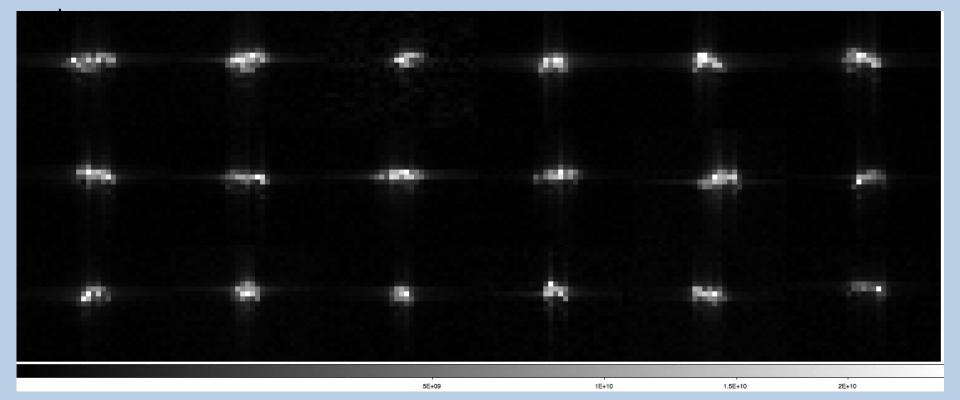
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Gianluca Masi, Italy - The Virtual Telescope Project - http://www.virtualtelescope.eu

GSSR RADAR Imaging Results

Images of 2012 DA14 spanning nearly 8 hours on Feb. 16. An elongated object is clearly revealed. Based on the changes in the bandwidths and visible range extents, the aspect ratio for this object is close to 2:1. DA14 is small so the images only marginally resolve the object in time delay. Preliminary estimates the pole-on dimensions are roughly 40 x 20



A collage of the 2012 DA14 rotation obtained with a bistatic setup at Goldstone with DSS-14 transmitting and DSS-13 receiving: Feb 16, 00:46 – 08:31 UTC. The round-trip-time (RTT) to 2012 DSS14 changed from ~0.85 s to ~2 s during observations. Each frame is 320 sec of data integration. Resolution: 3.75 m x 0.0125 Hz. One full rotation is about 7 hours