

2002 GT: A 2020 Future Deep Impact Flyby Target

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2002 GT was first discovered in April 03, 2002 by Spacewatch (JPL Small Body Database). It has recently been of interest for a flyby from the Deep Impact spacecraft that is scheduled for January 04, 2020 (Chelsey et al. DPS 2012). In June 2013, the asteroid 2002 GT flew within 0.012 AU of the Earth, prompting many organizations to turn their telescopes in that direction. As part of the CURE group, we observed this asteroid the 12th, 13th, 18th, 20th, and 23rd of May and the 6th of July in colors and in R band up at the 0.6 m telescope at the Table Mountain Facility. We also observed our target on the 05th of June on the P200 at Palomar. Preliminary examination of our light curve data determines a rotational period of 3.77 hours. The asteroid type can be determined by looking at the color measurements taken, of which our data at TMO determined it to be an S-family asteroid. The P200 at Palomar helped us narrow it down to a Sq type. This means that it is of a stony composition, with olivine and pyroxene features.