

Status of the Analysis of the Gravity Probe B Telescope Output Data

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A cryogenic optical telescope was used as the sensor for pointing control of the Gravity Probe B spacecraft. At the sensor level, the telescope met all the science requirements set before launch. Due to a larger than expected pointing error caused by the attitude control system, especially the pointing error at the roll rate frequency during the early part of the mission, the non-linear correction to the telescope becomes significant in the overall science data analysis. We report the progress in estimating the first order non-linear correction to the telescope signal. Other biasing factors that affect the pointing signal in higher order will also be discussed.