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## Studying (911) Agamemnon three-dimensional shape through new Stellar Occultations

Jupiter Trojans are small bodies located at the L4 and L5 Lagrangian points of this planet. Studying the shape of these objects can provide us with information about their collisional past, which is related to Jupiter's dynamical evolution during its early migration through the solar system. Among the Jupiter Trojans L4 field, we find (911) Agamemnon, which was observed in 2012 with the stellar occultation technique, revealing a small satellite. This technique consists of observing the passage of an object in front of a star for a given observer. The observer measures a variation in the star flux while the body crosses the observer's line of sight. As the velocity of these objects is known, it is possible to obtain the size of the section that each observer registered, resulting in a description of the object's size and limb. This work analyzes 10 new stellar occultations by Agamemnon, resulting in 15 positive chords. To better comprehend its real shape, we compared the new occultation chords with Agamemnon's 3D model provided by the Database of Asteroid Models from Inversion Techniques (DAMIT). Using the  $\chi^2$  method with different processing approaches, such as parallel processing and genetic algorithms, we derived an adjustment that best fits all events together, resulting in a pole position of  $\lambda = 125^\circ$ ,  $\beta = 5^\circ$ , and a model volumetric equivalent radius of 75 km. We also derived a possible model limb error in order to obtain a  $\chi^2_{pdf}$  close to unity.

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