

Jupiter - friend or foe?

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Throughout both popular science and academia, there is a pervasive belief that Jupiter has acted as a celestial shield, reducing the impact rate on the Earth, and making the planet a significantly more conducive site for the evolution and survival of life. This old idea has, however, undergone little detailed scrutiny. In the first of a series of studies aimed at a better understanding of this idea, we examine the variation in the impact rate on the Earth which results from bodies moving inwards from the Edgeworth-Kuiper belt as a function of the mass of a giant planet in Jupiter's orbit. The results are not entirely what would be expected under the "Jupiter Shield" paradigm.