

The abundance of contact binaries in the Kuiper belt

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We use Roche binary models to improve previous estimates of the contact binary fraction within the Kuiper Belt object (KBO) population (Sheppard & Jewitt 2004). Our simulations can be used to determine the lightcurve range of Roche binaries at arbitrary observing geometries, and for different surface types. This allows us to better correct the apparent fraction for observing geometry effects. We find that at least 9% of KBOs are contact binaries. Such high incidence of KB contact binaries has important implications to binary formation and collisional evolution scenarios.