



Simulating the cratering history of asteroid (2867) Steins

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Asteroid (2867) Steins is the first fly-by target of the ESA Cornerstone mission Rosetta, with a closest encounter scheduled for September 5, 2008. During this opportunity Steins will be observed with several instruments. In particular, the Narrow Angle Camera (NAC) of the OSIRIS imaging system will capture a large fraction of its surface, with a spatial resolution up to about 15 m/pix, from a minimum distance of about 800 km. In order to provide a basis for the age estimate of Steins' surface, we developed a model for simulating the cratering history of this body. The model is based on the impactor size distribution and average impact probability proposed by Bottke et al. (2005). Here we describe our model and present the first results of the simulations.