

Figure 2. Size-frequency distribution of L_5 Trojans and the Ennomos family.

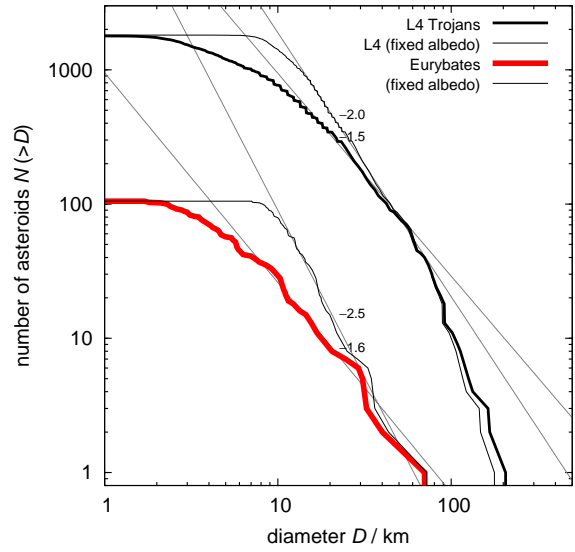


Figure 5. SFD for size-dependent albedo according to Fernandez et al. (2003).

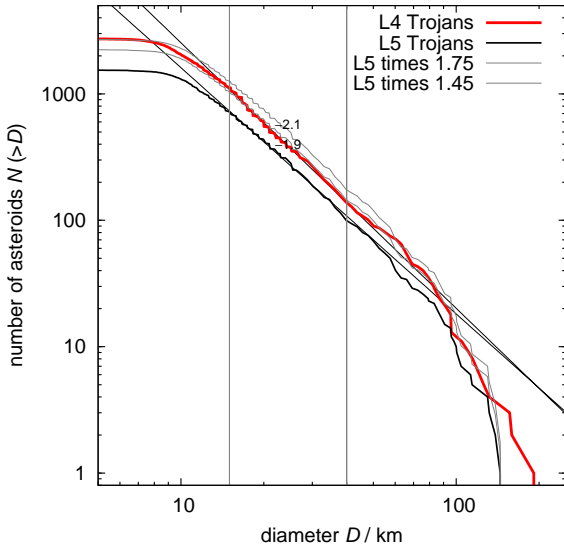


Figure 4. SFD of L_4 and L_5 Trojans

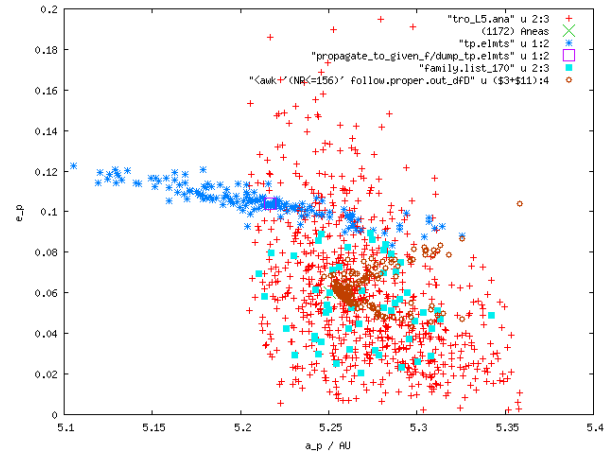


Figure 8. The synthetic family, which should correspond to the Anneas group, just after the impact disruption event ($f_{\text{imp}} = 135^\circ$, $\omega_{\text{imp}} = 233^\circ$, $R_{\text{PB}} = 47 \text{ km}$, $\rho_{\text{PB}} = 2.5 \text{ kg/m}^3$). The synthetic family is way too smaller than the observed Anneas group.

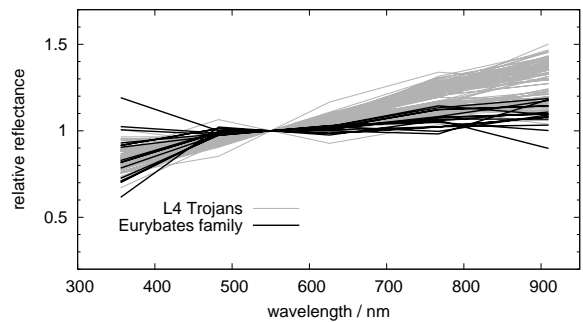


Figure 10. Eurybates spectra

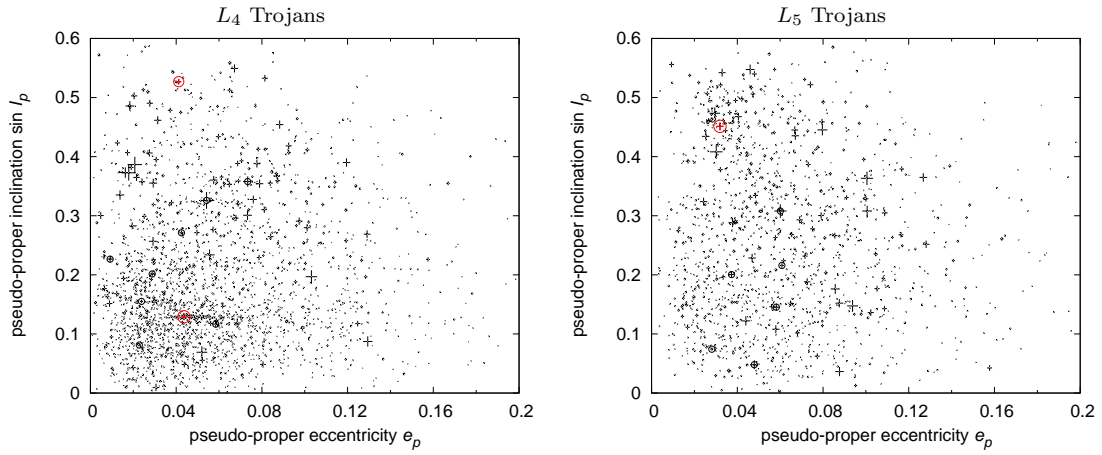


Figure 1. resonant elements (e, I)

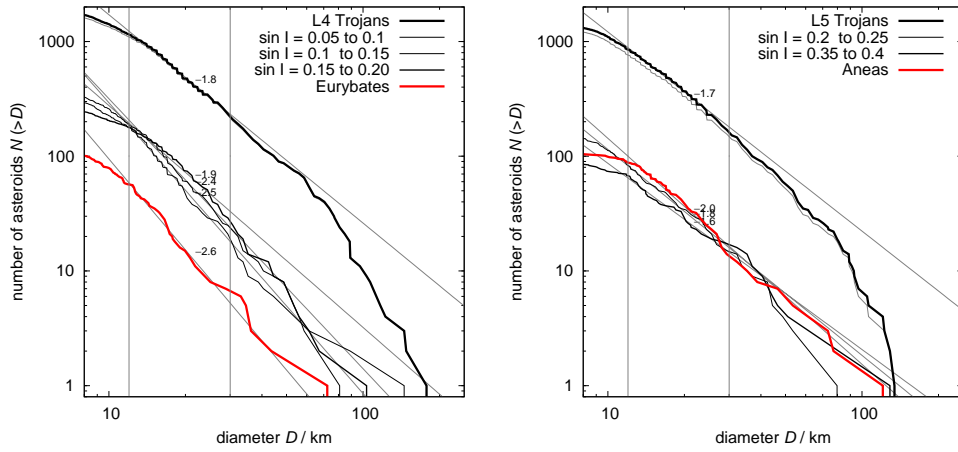


Figure 3. Size-frequency distributions $N(>D)$ for L_4 and L_5 Trojans.

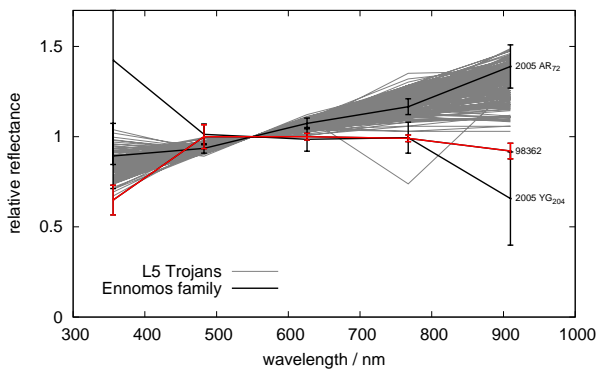


Figure 11. Ennomos spectra

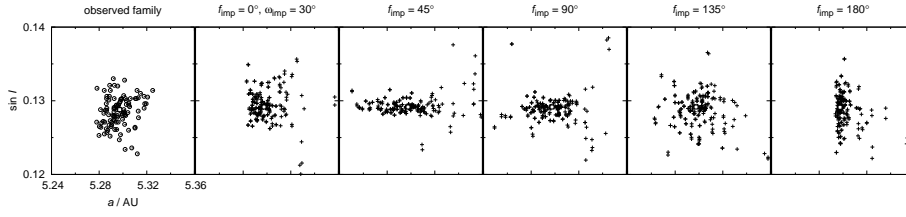


Figure 6. Eurybates impact (a, I)

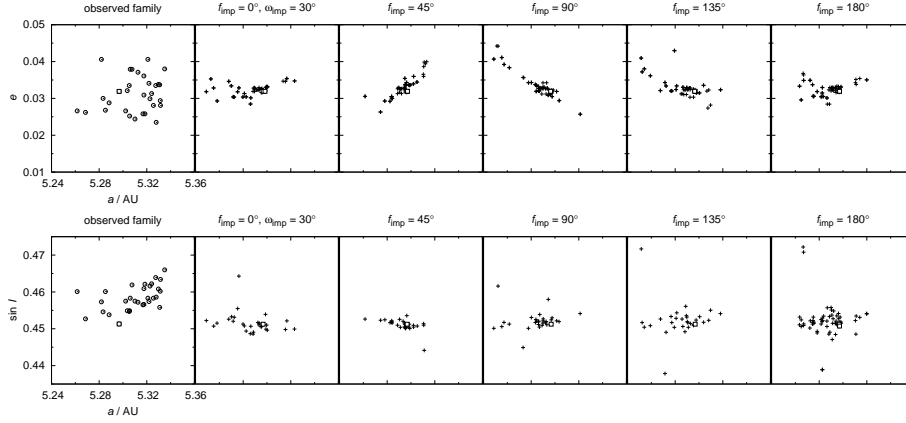


Figure 7. Ennomos impact

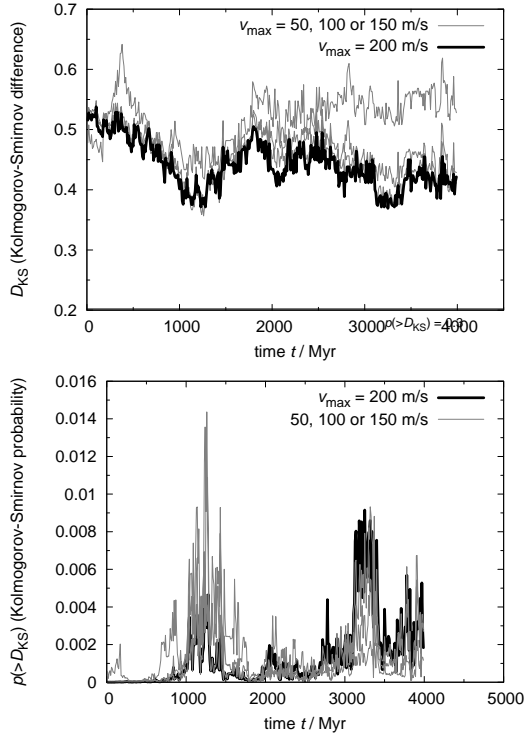


Figure 12. 2-dimensional Kolmogorov–Smirnov test of the (a, e) distributions for the synthetic family and the observed Eurybates family. Left panel: the KS distance D_{KS} vs time t . Right panel: the corresponding probability $p(>D)$ that the distance is larger than D_{KS} and the underlying distributions are the same.

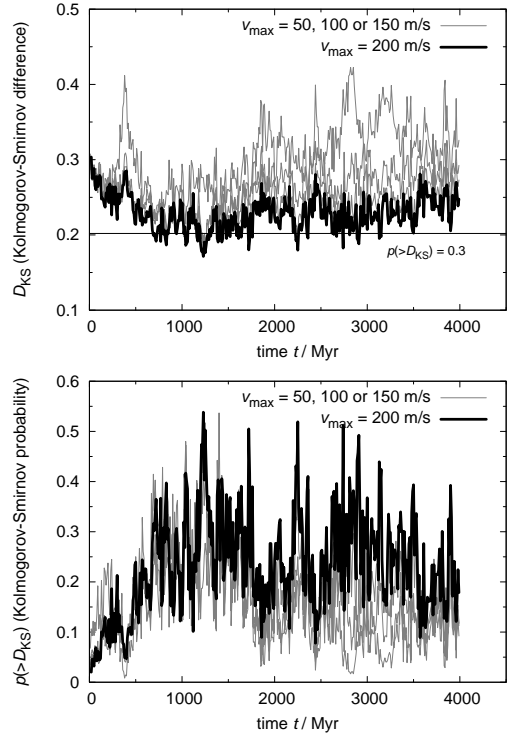


Figure 13. The same as Figure 12 but for the synthetic distribution shifted by $\Delta a = -0.005$ AU and $\Delta e = +0.005$ in order to align the synthetic family with the observed Eurybates family. Note these distances correspond to typical excursions of bodies due to chaotic diffusion, so the Eurybates parent body might have been offset by this amount.

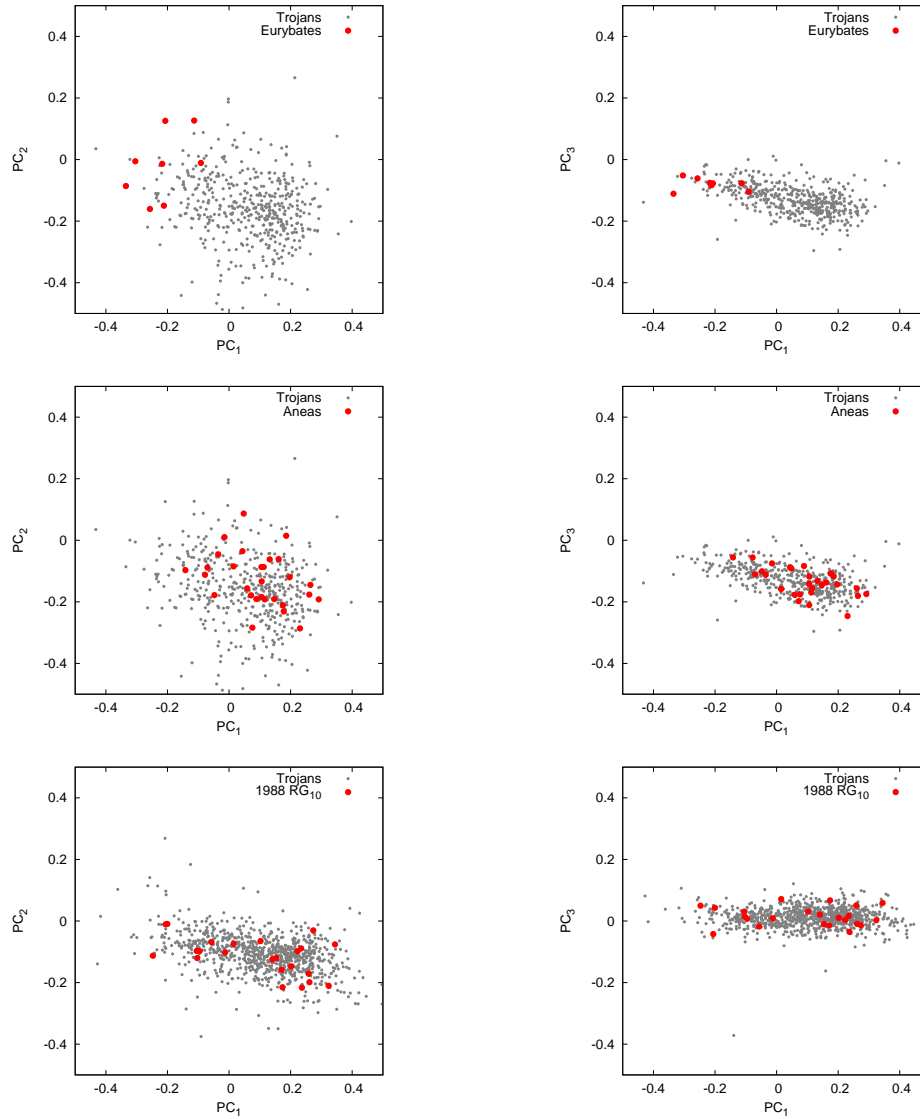


Figure 9. PCA analysis for the Eurybates family, the Aeneas group (with four colour indices), the 1988 RG₁₀ group (3 colour indices only was used because four-colour data was limited).

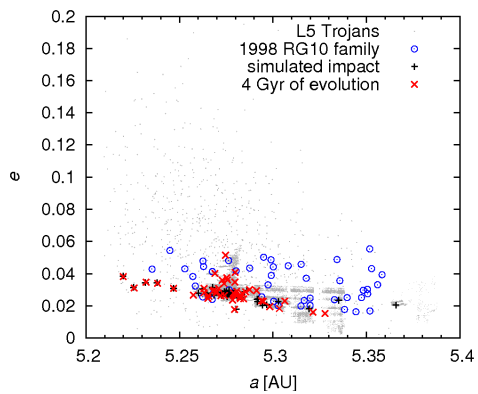


Figure 15. Evolution of the synthetic family over 4 Gyr versus the observed 1988 RG₁₀ group. The spreading is too slow and the synthetic family remains smaller than the observed group all the time.

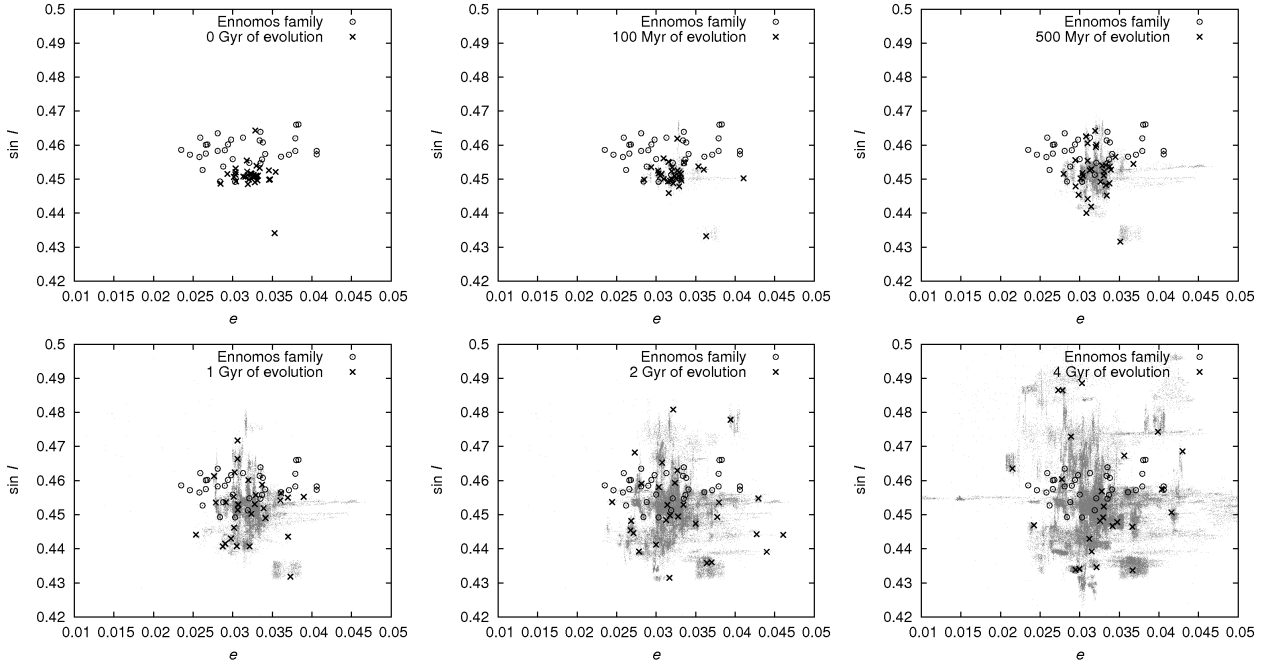


Figure 14. Evolution of the synthetic family over 4 Gyr versus the observed Ennomos family.