

DYNAMICS OF COMETS: THEIR ORIGIN AND EVOLUTION

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There is growing interest within the international planetary science community in the origin and dynamics of comets. These bodies can be considered as remnants of the original population of planetesimals and the study of their origin and dynamical histories can provide insight into the accretion phenomena; the original mass, energy and angular momentum distribution across the Solar System; the collisional fragmentation of minor bodies; the impact rates on planets and the nature of impacting bodies. The interaction of comets with other solar system bodies certainly provides one of the best possibilities for a deeper understanding of the dynamics of the whole system, and a challenging test for all theories of celestial mechanics dealing with the gravitational behaviour of multiple-body systems. Comets could also be considered as the last footprints left by the interaction of the protosun and its original galactic environment.

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