Joint Physics & IA/FORTH Colloquium

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Chaotic sculpting of our solar system

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ABSTRACT

In the last 20 years it became well understood that chaotic processes have played a critical role in the different evolutionary phases of our solar system. The various dynamical patterns, the physical conditions leading to their manifestation, and the sequence of events that shaped our system can be traced back by deciphering the orbital distribution of asteroids and comets in the system, through a combination of advanced analytical tools and numerical simulations. In this talk we are going to review recent advances, showing how a pattern of generic dynamical pathways emerges, with implications for exoplanetary systems.