**Fast transit outer planet exploration with small satellites**

Artur R. Davoyan

University of California, Los Angeles

We overview our work on approaches for fast transit exploration of outer solar systems. We discuss solar sailing and laser sailing. In the context of solar sailing we show that small CubeSat class spacecraft may be put onto hyperbolic trajectories by performing an Oberth maneuver with small perihelion. We discuss associated challenges and possible solutions. We then discuss laser sailing as a possible pathway for launching wafer scale spacecraft.