



## **The complex life of Saturn's small satellites at the ring's outer edge.**

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In this presentation we review some of the recent cassini discoveries concerning the links between the Saturn's small satellites (Pan, Atlas, the F ring retinue) and the dynamical processes observed at the edge of Saturn's main rings. This region is of particular interest since it is located on the Roche Limit, so that unstable, exotic accretionary and collisional processes could be expected there. We show in particular that complex interactions observed between rings and satellites like accretion, physical collisions, exchange of material, radial migration, draw a new and coherent picture of this complex region. Porco et al (2007) and Charnoz et. al (2007) point to the ring-region moons having sizes and shapes determined in part by accretion. The cycle of material close to the A ring edge appears now as very dynamical and may share some common properties with circumstellar debris disks. There is also strong suspicions that this is one of the last places in the Solar System where on-going accretion is still present.