



## **Kinetic effects in Enceladus plasma environment**

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The southern plume of Enceladus represents a significant source of neutrals, ions and dust for the neighboring plasma environment and even for the inner magnetosphere of Saturn. The ion mass loading rate from the plume is not only confirmed by direct plasma measurements but can also be deduced from the strong signatures observed on the Kronian magnetospheric background magnetic field. In view of recent knowledge, namely based on in situ observations provided by numerous Cassini flybys, we try to model numerically and reconstruct the complex plasma environment in the vicinity of the moon by use of a full 3-dimensional hybrid code. With obtained results we attempt to investigate the role of kinetic effects in generation of the ion-cyclotron waves instantaneously observed by the Cassini spacecraft.