



## **CSES and Swarm comparison of ionospheric plasma density observations: a case study.**

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The CSES satellite was launched on February 2nd, 2018 into a sun synchronous orbit at an altitude of approximately 500 km. The scientific objectives of CSES are to monitor the electromagnetic field and waves, plasma and particles perturbations of the atmosphere, ionosphere and magnetosphere induced by natural sources and anthropogenic emitters, and to identify recurrent features in the preparation phases of seismic events. The global parameters of the ionospheric plasma are observed by two Langmuir Probes (LP) which are ubiquitous instruments on satellites [Lebreton et al., 2006]. This instrument can operate in various modes in order to better identify different plasma structures characterized by various spatial and temporal scales. Our analysis provides a comparison between plasma parameters observed by CSES by SWARM, instruments that operate in different modes [Siefring et al. 1998; Knudsen et al., 2017]. We show that the discrepancies identified depend both on the latitudinal plasma features variability and the adopted working mode.