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Global numerical simulations of the interaction between Ganymede and Jovian plasma

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Abstract

We will present preliminary results from a global simulation of the interaction between Ganymede and Jovian plasma. Ganymede circulates Jupiter in a plasma environment with ambient B equal to approximately 100 nT and plasma flow velocity 140 km/s. Ganymede has its own intrinsic magnetic field with surface strength 1500 nT. We will focus on kinetic aspects of the interaction and present results which my help to design the optimal implementation of the EJSM/JGO mission.