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ポスター 4 : 11/26 AM1/AM2 (9:00-12:00)

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Elastic scattering of keV electrons by water molecules around Enceladus: A test particle simulation

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Saturn's inner magnetosphere is primarily composed of water group neutrals originated from Enceladus, which play a crucial role in plasma loss. Previous our studies have focused on electron loss due to elastic collisions with water molecules. We have previously estimated the electron loss rate and energy input into the atmosphere due to the elastic collisions between 500 eV to 50 keV electrons and water molecules. However, the peak energy of electron energy input has remained unidentified. We show this peak energy and re-evaluate the energy input into the atmosphere.