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Orbital simulations for a satellite with a corona ionization thruster

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Abstract content
   (Max 300 words)

The corona ionization thruster works by ionizing a gas propellant emerging from a thin needle tip, and accelerating the resulting ions through the neutral propellant, creating an ionic wind. New thrust and electrical measurements for such a system have recently been obtained. The results allow for a simulation of the possible orbital manoeuvres of a small nano-class satellite. Various such manoeuvres are simulated, ranging from orbit raising to controlled de-orbiting the results of which are presented in the poster.

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