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## Kinetic modelling of Solar Orbiter space environment

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Solar Orbiter is a European Space Agency (ESA) mission scheduled for launch early in 2017, with the objective of providing observations of unprecedented quality of the sun and solar wind at locations ranging from 0.28 to 0.9 astronomical units (AU). During its journey, Solar Orbiter will experience a vast range of space-environment conditions, including intense radiation and solar wind plasma fluxes near perihelion, and exoisure to high energy particle associated with flares or coronal mass ejections. The interaction of Solar Orbiter with its environment is simulated kinetically for representative solar wind conditions along its orbit, and a particular attention is given to the effect of perturbations associated with plasma-satellite interaction on particle sensor measurements.

Author: Prof. MARCHAND, Richard (University of Alberta)

**Co-authors:** Prof. OWEN, Christopher (University College London); Prof. GREY, Stuart (University College London)

Presenter: Prof. MARCHAND, Richard (University of Alberta)

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