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# Solar wind interaction with Venus and Mars in a spherical hybrid model

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We study the Venus-solar wind interaction and the Mars-solar wind interaction in a spherical hybrid simulation by using the HYB modelling platform for planetary plasma interactions. These globally unmagnetized planets are under the influence of the supersonic and super-Alfvénic solar wind from the Sun. The ionospheres of Venus and Mars form an obstacle to the magnetized solar wind flow, and, as a result, an induced magnetosphere is formed around these planets. The radii of Venus and Mars are of the same order of magnitude or smaller than a typical planetary heavy ion (e.g. oxygen) gyro radii in the solar wind. Therefore, ion finite Larmor radius (FLR) effects can play a role in the formation of their induced magnetospheres. In this study we concentrate on comparison of Venus and Mars simulation runs by using the recently developed spherical coordinate version of our HYB hybrid simulation.