

PEM34-03

Room:503

Time:May 1 12:15-12:30

Solar wind plasma entry into the wake behind an unmagnetized obstacle

NAKAGAWA, Tomoko^{1*}

¹Information and Communication Engineering, Tohoku Institute of Technology

Plasma entry into a wake downstream of a non-magnetized obstacle in the supersonic flow of the solar wind is studied by using a two-dimensional, electromagnetic particle-in-cell simulation. Importance of negative charging of the downstream-side surface of the obstacle is examined by comparing the simulation results of 3 different ratios 8, 16, 32 of the obstacle size to the Debye length.

Keywords: wake, solar wind, surface charging, electron thermal speed, Debye length, particle-in-cell simulation