Field aligned electron flow generated by vortex at the lunar wake boundary

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Field aligned electron flow was found by Kaguya MAP-PACE instrument in association with vortex at the lunar wake boundary inferred from the polarization of the magnetic field fluctuation observed by MAP-LMAG with respect to the background magnetic field. The speed of the electron flow was 4000 km/s and the direction was consistent with the equivalent electric charge generated by the magnetic field convected by the vortex motion at the wake boundary.

Keywords: Field aligned electron flow, lunar wake, vortex, polarization, Kaguya