Abstract Submitted
for the MAS17 Meeting of
The American Physical Society

Conjugate Observations of Electromagnetic Ion Cyclotron (EMIC) Waves HYOMIN KIM, New Jersey Institute of Technology, MARC LESSARD, University of New Hampshire, ANDREW GERRARD, New Jersey Institute of Technology, EUN-HWA KIM, Princeton Plasma Physics Laboratory — This study presents space-ground conjugate observations of electromagnetic ion cyclotron (EMIC) waves to investigate characteristics of wave propagation from the magnetosphere to ionosphere in the context of geospace environment conditions. EMIC wave events are observed using data from the Van Allen Probes spacecraft. Wave activities at the conjugate locations on the ground are identified to examine their spatial and temporal occurrence and propagation characteristics. Differences in wave power, polarization, and spectral structure between events in space and on the ground are reported. The statistical survey results are compared with solar wind, geospace, and particle conditions to examine how wave propagation is affected by these conditions.

Hyomin Kim
New Jersey Institute of Technology

Date submitted: 26 Sep 2017 Electronic form version 1.4