Modeling of ion observations around Mercury by MMO/MIA

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The preliminary design review of sub-components on MMO has just finished by the end of 2007 and now engineering models are being manufactured. MIA (Mercury Ion Analyzer) is a top-hat type electrostatic analyzer and measures 3-dimensional distribution function of ions around Mercury with energy range of 30 eV up to 30 keV. Based on the preliminary design of MIA, we have been modeling actual ion measurement under various plasma conditions expected around Mercury. We present results of the model calculations and discuss capability of MIA for disclosing Mercury's plasma environment.