

Abstract Submitted
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Langmuir Probe measurement and the Spacebuoy mission BEN-JAMIN COLE, University of Dallas, DAVID KLUMPAR COLLABORATION¹ — Disturbances in the earth's magnetosphere and ionosphere can have profound impacts on earth and space-borne systems. The goal of the Spacebuoy mission at Montana State University is to contribute essential data to the GAIM (Global Assimilation of Ionospheric Measurements) model that is used by the Air Force Weather Agency to better understand the ionosphere. The Spacebuoy satellite will collect in-situ ion density and columnar total electron content (TEC) measurements and will demonstrate the feasibility of a buoy-like operations concept. The theory of Langmuir probe measurement in the ionosphere is presented, and particular considerations relevant to the Spacebuoy mission are discussed in detail.

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