

The Moon Burst Energetics All-sky Monitor (MoonBEAM) Instrument Design

Joshua Wood^{a,*}

^aNASA Marshall Space Flight Center, ST12 Astrophysics Branch, Huntsville, USA

E-mail: joshua.r.wood@nasa.gov

MoonBEAM is a SmallSat concept capable of monitoring the entire sky for short gamma-ray transients from a cislunar orbit. A key aspect of its science instrument design is the use of phoswich technology, which couples multiple scintillating crystals to a single photosensor. This design allows it to achieve true all-sky coverage using just six detector units, with on-board flux sensitivity and localization performance similar to the Fermi Gamma-ray Burst Monitor. We will provide an overview of the instrument design as well as preliminary performance testing of the prototype detector assembly.

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*Speaker