Stratospheric Radiation Measurements via a High Altitude Balloon

DYLAN WOOD, RYAN ADAMS, BRYAN GAITHER, B. ALEXANDER KING, SPENCER BUCKNER, JUSTIN OELGOETZ, Department of Physics & Astronomy, Austin Peay State University — High altitude balloons serve as a relatively inexpensive and simple method to study a unique environment with extremely low temperatures and pressures, far above most of the atmosphere, and may be used to carry a wide variety of experiments. Austin Peay State University has built a flight system and conducted multiple launches collecting simple data on the balloon payload’s acceleration, position, orientation, internal and external temperatures, as well as photography and video. This poster reports on subsequent launches equipped with an on-board Geiger counter for cosmic ray studies, specifically targeting solar radiation. Initial results of analysis of cosmic ray data will be presented along with a discussion of future plans.