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**CASTER - A Concept for a Black Hole Finder Probe based on the Use of New Scintillator Technologies** MARK MCCONNELL, PETER BLOSER, Univ. of New Hampshire, GARY CASE, MICHAEL CHERRY, LSU, JAMES CRAVENS, Southwest Research Inst., T. GREGORY GUZIK, LSU, KEVIN HURLEY, UC - Berkeley, R. MARC KIPPEN, LANL, JOHN MACRI, Univ. of New Hampshire, RICHARD MILLER, WILLIAM PACIESAS, Univ. of Alabama - Huntsville, JAMES RYAN, Univ. of New Hampshire, BRADLEY SCHAEFER, J. GREGORY STACY, LSU, W. THOMAS VESTRAND, LANL, JOHN WEFEL, LSU — The primary scientific mission of the Black Hole Finder Probe (BHFP), part of the NASA Beyond Einstein program, is to survey the local Universe for black holes over a wide range of mass and accretion rate. One approach to such a survey is a hard X-ray coded aperture imaging mission operating in the 10-600 keV energy band, a spectral range that is considered to be especially useful in the detection of black hole sources. The development of new inorganic scintillator materials provides improved performance (for example, with regards to energy resolution and timing) that is well suited to the BHFP science requirements. Detection planes formed with these materials coupled with a new generation of readout devices represent a major advancement in the performance capabilities of scintillator-based gamma cameras. Here, we discuss the Coded Aperture Survey Telescope for Energetic Radiation (CASTER), a concept that represents a BHFP based on the use of the latest scintillator technology.

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