

Cover Page

Title:	THE RAPID IMAGER AND SPECTROGRAPH (RIMAS): A NEW WINDOW INTO THE HIGH-REDSHIFT UNIVERSE		
Principal Investigator:	DR. STEPHEN BRADLEY CENKO		
Institution:	NASA/GSFC		
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Proposal Type:	2. Correlative GRB observations involving new or enhanced IR ground-based capabilities for investigating high redshift bursts (funding only)
Science Subject:	GAMMA-RAY BURSTS
Total Time Requested (ksec):	0.00
Number of Targets:	0

Abstract:

RIMAS is a new NIR instrument designed expressly to identify high-redshift GRBs from Swift, scheduled to be installed on the 4.3 m Discovery Channel Telescope in the first half of 2015. RIMAS can operate in and switch rapidly (10s of seconds) between three modes: 1) simultaneous 2-band imaging; 2) high-throughput, R~25 NIR spectroscopy; 3) high-resolution (R~4500), cross-dispersed echelle spectroscopy providing simultaneous coverage from 0.9-2.4um. Unlike most classically scheduled facilities, RIMAS will be continuously available for rapid-response (dt <~ minutes) ToO observations. By Cycle 11, RIMAS will be routinely obtaining rapid multi-color photometry and NIR spectra of Swift afterglows to measure their redshifts and constrain properties of their host galaxies and the surrounding IGM.

General Form

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Principal Investigator: DR. STEPHEN BRADLEY CENKO

Co-Investigator(s):

Name	Institute	Country
ALEXANDER KUTYREV	NASA/GSFC & UMD	USA
NEIL GEHRELS	NASA/GSFC	USA
VICKI TOY	UNIVERSITY OF MARYLAND (COLLEGE PARK)	USA
JOHN CAPONE	UNIVERSITY OF MARYLAND (COLLEGE PARK)	USA
JAY NORRIS	BOISE STATE UNIVERSITY	USA

Contact first Co-Investigator listed above? No

Contact Telephone:

Contact E-mail:

Is this investigation part of a graduate student thesis? No

Number of Undergraduates Involved: 0

Number of Graduate Students Involved: 2

Is this a joint Swift/NRAO proposal? No

Total NRAO Time Requested (hours): 0.0

NASA FTE Commitment: 0.0000

Anticipated Total Budget: 120.0