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First Gamma Ray Burst Observations with Swift

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Swift is a NASA Explorer mission that was launched on November 20, 2004. It is a multiwavelength observatory for transient astronomy. The goals of the mission are to determine the origin of gamma-ray bursts and their afterglows and use bursts to probe the early Universe. A wide-field gamma-ray camera will detect more than a hundred GRBs per year to 3 times fainter than BATSE. Sensitive narrow-field X-ray and UV/optical telescopes will be pointed at the burst location in 20 to 70 sec by an autonomously controlled “swift” spacecraft. For each burst, arcsec positions will be determined and optical/UV/X-ray/gamma-ray spectrophotometry performed. The instrumentation is a combination of existing flight-spare hardware and design from XMM and Spectrum-X/JET-X contributed by collaborators in the UK and Italy and development of a coded-aperture camera with a large-area (~ 0.5 square meter) CdZnTe detector array. The ground station in Malindi is contributed by the Italian Space Agency. Key components of the mission are vigorous follow-up and outreach programs to engage the astronomical community and public in Swift. First results from the mission will be presented.

¹on behalf of Swift Team