[구ID-11] 감마선폭발 초기광 측정을 위한 Ultra Fast Flash Observatory

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UFFO (Ultra Fast Flash Observatory is an ultra-fast optical/UV telescope which can slew to targets within 1 msec using micromirrors. It is utilized for observations of prompt optical/UV photons from GRBs (Gamma Ray Bursts), permitting the first ever systematic study of optical/UV emission far earlier than 1 msec after trigger. We describe a concept and optical designs of the UFFO, and report results simulations and lab tests with a prototype telescope

[구ID-12] Trigger and readout system to detect the prompt photons from GRBs in Ultra Fast Flash Observatory

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A new microsatellite instruments, the Ultra Fast Flash Observatory (UFFO) is proposed to study the prompt emission from gamma ray bursts (GRBs) and other transient space phenomenon from the optical to gamma-ray frequencies. The key idea of the UFFO is very fast pointing of the UV/optical telescope using the Micro-Electro-Mechanical Systems (MEMS) mirrors which can slew to targets within 1 msec. We present the trigger system to detect the fast transient events with the wide-field telescope and the readout system to manage the huge amount of data from the telescope detector within the limited processing time.