

Status and perspectives of Mini-MegaTORTORA wide-field monitoring system with high temporal resolution

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Abstract

Here we briefly summarize our long period experience of constructing and operating wide-field monitoring cameras with sub-second temporal resolution to look for optical components of GRBs, fast-moving satellites and meteors. General requirements for hardware for such systems are discussed along with algorithms of real-time detection and classification of various kinds of short optical transients. We also give a status report on the next generation, multi-objective and transforming monitoring system, the MegaTORTORA, whose 6-channel (Mini-MegaTORTORA-Spain) and 9-channel prototypes (Mini-MegaTORTORA-Kazan) we are building now at SAO RAS. This system combines a wide field of view with subsecond temporal resolution in monitoring regime, and is able to reconfigure itself, in a fractions of second, to follow-up mode which has better sensitivity and provides us with multi-color and polarimetric information on detected transients simultaneously. © EAS, EDP Sciences 2013.

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