**The Robotic Telescope System for GRB Optical Follow-up in Timau Observatory**

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ABSTRACT

The occurrence of Gamma Ray Bursts (GRB) is yet unpredictable. Thus, follow-up observations to find its optical counterpart should be made as quickly as possible after the first detection, as well as keep being monitored on the observable area. In Southeast Asia region, two new robotic 50-cm telescope system will be placed in Timau National Observatory, East Nusa Tenggara, Indonesia, which has about 70% of clear sky fraction [1] with low-latitude sky coverage. In this manuscript, the possibility of implementing the system as GRB follow-up is discussed, followed by its future prospects as a multimessenger optical follow-up robotic telescope. The current properties and status of the system are also described.

*Keywords: Timau; robotic telescope; GRB*

References

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| [1] | Hidayat, T., Mahasena, P., Dermawan, B., Hadi, T. W., Premadi, P. W., & Herdiwijaya, D. (2012). Clear sky fraction above Indonesia: An analysis for astronomical site selection*.* MNRAS, 427(3), 1903–1917. |
| [2] | Abbott, B. P., Abbott, R., Adhikari, R. X., Ananyeva, A., Anderson, S. B., Appert, S., ... & Berger, B. K. (2017). Multi-messenger observations of a binary neutron star merger. *Astrophysical Journal Letters*, *848*(2), L12. |