

Development of novel algorithms for detecting high-energy transient events in astronomical time series.

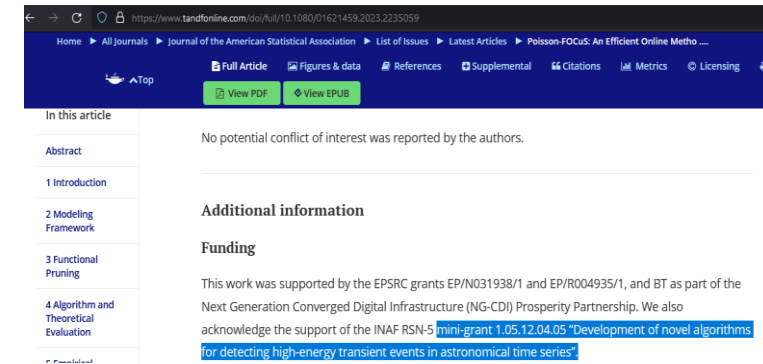
Rendicontazione Minigrant 2023

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Obiettivi raggiunti

- **Publicato @ Journal of the American Statistical Association**
Ward, K., Dilillo, G., Eckley, I., & Fearnhead, P. (2023). Poisson-FOCuS: An efficient online method for detecting count bursts with application to gamma ray burst detection. *Journal of the American Statistical Association*, 1-13.
- **Accettato per la pubblicazione @ Astronomy and computing**
Crupi, R., Dilillo, G., Bissaldi, E., Fiore, F., & Vacchi, A. (2023). Searching for long faint astronomical high energy transients: a data driven approach. *Accepted for publication at Astronomy and Computing*
- **Undergoing review @ The Astrophysical Journal:**
Dilillo, G., Ward, K., Eckley I., Fearnhead P., Crupi R., Evangelista Y., Vacchi A., Fiore F. (2023). Gamma-ray burst detection with Poisson-FOCuS and other trigger algorithms. *Undergoing review for The Astrophysical Journal*.
- **We made an implementation for HERMES-Pathfinder and proposed it for application on-board the satellites.**
<https://github.com/peppedilillo/grb-trigger-algorithms>
<https://zenodo.org/records/10069414>



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Spese sostenute

1. Astrominformatics, conferenza con talk e proceedings
01/10/2023 (Napoli) ~ 1344 eur.
2. Astrostatistics school, corso statistica bayesiana
16/10/2023 (Milano) ~ 990 eur.

Spese attese:

- Costi pubblicazione APJ, ~3000 eur.
- TBD

Criticalità

Non ci sono criticalità da segnalare.