



UvA-DARE (Digital Academic Repository)

FAST Detects Multiple Bursts in L-band from FRB 121102

Di, L.; Zhang, X.; Qian, L.; Zhu, W.; Duan, R.; Werthimer, D.; Gajjar, V.; Zhu, Y.; Cobb, J.; Yue, Y.; Jin, C.; Zhang, B.; Gouiffes, C.; Wang, S.; Spitler, L.; Cruces, M.; Hessels, J.; Seymour, A.; Korpela, E.; Luo, J.; Gan, H.; Jiang, P.; Li, H.; Li, Q.; Liu, H.; Miao, C.; Niu, C.; Pan, G.; Pan, Z.; Peng, B.; Sun, J.; Tang, N.; Wang, Q.; Wang, P.; Pei, X.; Yan, J.; Yao, R.; Yu, D.; Yuan, M.; Zhang, H.; Zhang, L.; Zhang, S.

Publication date

2019

Document Version

Final published version

Published in

The astronomer's telegram

License

Unspecified

[Link to publication](#)

Citation for published version (APA):

Di, L., Zhang, X., Qian, L., Zhu, W., Duan, R., Werthimer, D., Gajjar, V., Zhu, Y., Cobb, J., Yue, Y., Jin, C., Zhang, B., Gouiffes, C., Wang, S., Spitler, L., Cruces, M., Hessels, J., Seymour, A., Korpela, E., ... Zhang, S. (2019). FAST Detects Multiple Bursts in L-band from FRB 121102. *The astronomer's telegram*, 13064. <http://www.astronomerstelegram.org/?read=13064>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library@the-university-of-amsterdam.nl, Secretariat, Singel 425, 1012 CA Amsterdam, The Netherlands. You will be contacted as soon as possible.

The Astronomer's Telegram

[Post](#) | [Search](#) | [Policies](#)
[Credential](#) | [Feeds](#) | [Email](#)

25 Feb 2020; 11:30 UT

Outside

[GCN](#)
[IAUCs](#)

Other

[ATel on Twitter](#) and [Facebook](#)
[ATELstream](#)
[ATel Community Site](#)

This space for free for your conference.



[[Previous](#) | [Next](#) | [ADS](#)]

FAST Detects Multiple Bursts in L-band from FRB 121102

ATel #13064; *Di Li (NAOC), Xinxin Zhang (NAOC), Lei Qian (NAOC), Weiwei Zhu (NAOC), Ran Duan (NAOC), Dan Werthimer (Berkeley), Vishal Gajjar (Berkeley), Yan Zhu (NAOC), Jeff Cobb (Berkeley), Youling Yue (NAOC), Chengjin Jin (NAOC), Bing Zhang (UNLV), Christian Gouiffes (CEA), Shen Wang (NAOC), Laura Spitler (MPIfR), Mary Cruces (MPIfR), Jason Hessels (University of Amsterdam), Andrew Seymour (Arecibo), Eric Korpela (Berkeley), Jingtao Luo, HengQian Gan (NAOC), Peng Jiang (NAOC), Hui Li (NAOC), Qi Li (NAOC), HongFei Liu (NAOC), Chenchen Miao (NAOC), Chenhui Niu (NAOC), GaoFeng Pan (NAOC), Zhichen Pan (NAOC), Bo Peng (NAOC), JingHai Sun (NAOC), Ningyu Tang (NAOC), QiMing Wang (NAOC), Pei Wang (NAOC), Xin Pei (XAO), Jun Yan (NAOC), Rui Yao (NAOC), DongJun Yu (NAOC), Mao Yuan (NAOC), Haiyan Zhang (NAOC), Lei Zhang (NAOC), ShuXin Zhang (NAOC), and and FAST Collaboration (NAOC)*

on 2 Sep 2019; 01:32 UT

Credential Certification: *Di Li (dili@nao.cas.cn)*

Subjects: Radio, Fast Radio Burst

Referred to by ATel #: [13073](#), [13075](#), [13090](#), [13098](#), [13235](#)

Tracking observations of FRB 121102 were carried out with the newly commissioned Five-hundred-meter Aperture Spherical radio Telescope (FAST). We used the FAST L-band Array of 19-beams (FLAN), which has a FWHM of $\sim 2.95'$ for individual beams and a $\sim 26'$ footprint. The source was placed in the central beam, while all 19 beams were recorded. The bursts were firstly identified by the FRB backend on August 29th (UT), which performs real time signal processing of 19-beams data and automatic candidate selection/triggering. The subsequent single pulse search using multiple pipelines have turned up many tens of pulses with significant SNR in observations carried out so far, on the 29th, 30th, and 31st (UT). While careful cross-check are being carried out, the majority of these detections are expected to be credible. FAST has been

Related

- 13235** [Detection of Multiple Radio Bursts from FRB 121102 using the Deep Space Network](#)
- 13098** [MeerKAT detections of FRB 121102 at L-band](#)
- 13090** [Detection of A Fast Radio Burst from FRB 121102 with the Haoping 40m Radio Telescope, China](#)
- 13075** [UKIRT NIR upper limit on FRB121102](#)
- 13073** [INTEGRAL and radio joint programme of FRB121102 during a renewed activity](#)
- 13064** [FAST Detects Multiple Bursts in L-band from FRB 121102](#)

targeting FRB 121102 since April of this year. In addition to the regular on-going FRB follow-up programs, the current observations was also motivated by timely and valuable alerts from our colleagues in the INTEGRAL team, Arecibo team, Max-Planck Institute for Radio Astronomy, Berkeley, and Cornell University. Given the significance of this source and its now apparent active state, FAST is executing more observations under the auspice of engineering testing time and multiple approved PI-led programs, which targeted FRB 121102. We encourage more ToO observations with other facilities.

FAST pulsar survey results

[**Telegram Index**]

R. E. Rutledge, Editor-in-Chief

`rrutledge@astronomerstelegam.org`

Derek Fox, Editor

`dfox@astronomerstelegam.org`

Mansi M. Kasliwal, Co-Editor

`mansi@astronomerstelegam.org`