

Abstract Submitted  
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**Multiband Detection of Repeating FRB 20180916B<sup>1</sup>** JAKOB FABER, Department of Physics and Astronomy, Oberlin College; Department of Astronomy, University of California, Berkeley, KETAN SAND, Department of Physics and Astrophysics, University of Delhi, VISHAL GAJJAR, Department of Astronomy, University of California, Berkeley, DANIELE MICHILLI, BRIDGET ANDERSEN, Department of Physics, McGill University; McGill Space Institute, McGill University, BREAKTHROUGH LISTEN COLLABORATION, CHIME/FRB COLLABORATION — We report a series of joint detections of FRB 20180916B, a source that has been discovered to exhibit a 16.35-day periodicity with a 4-day active phase window, between the GBT (600-1000 MHz), uGMRT (300-500 MHz), and CHIME (400-800 MHz) radio observatories. We observed a total of 7, 4, and 1 bursts respectively, which spanned the collective 700 MHz bandwidth over the course of 3 days. The GBT detections were made earlier in the active phase window and exhibited a significantly higher burst-rate compared to uGMRT. In both GBT and uGMRT detections, we observe clear downward-drifting emissions and narrow multi-component time-frequency modulations that motivate the use of baseband data to investigate FRB sub-structure. We discuss how such features might be leveraged in disentangling effects intrinsic to the emission mechanism from those superimposed the surrounding medium during propagation. The analysis was performed using the transient detection pipeline SPANDAK and analysis pipeline FLITS, which currently run on the Breakthrough Listen backend at the GBT.

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