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IPTADR2 Analyses and Rapid, Incoherent PTA Dataset Combination LEVI SCHULT, Univ of Virginia, STEPHEN TAYLOR, Vanderbilt University, JOE SIMON, Colorado University-Boulder, SARAH VIGELAND, University of Wisconsin-Milwaukee — The International Pulsar Timing Array (IPTA) is an international collaboration of astronomers working to time multiple pulsars to detect evidence of gravitational waves in their timing residuals. In 2019, the IPTA released Data Release 2 (IPTADR2) which consists of timing solutions and times of arrival for 65 pulsars across the sky. We worked to test new, fast ways to explore the data for evidence of gravitational waves using one pulsar in particular, J1713+0747. This pulsar was selected for its long timing baseline, timing precision, and unique advantage of being observed by all constituent PTAs. We will continue to test similar pulsars to further understand these techniques. We additionally conducted some other full array analyses, such as the Factorized Likelihood and Dropout approaches to explore signals in IPTADR2. We present these preliminary results here.

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