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Limits on gravitational wave memory from the NANOGrav 11-year data set PAUL BAKER, West Virginia Univ, NANOGrav COLLABORATION — The merger of binary supermassive black holes (SMBH) can produce permanent changes in the spacetime metric referred to as gravitational wave (GW) memory. While the GW bursts associated with merger are outside of the typical sensitive frequency band for pulsar timing arrays (PTA), the memory effect can be detected by them. We present PTA limits on GW memory from merging SMBH using NANOGrav's the 11-year data set. We discuss the sensitivity of the NANOGrav array to GW memory as a function of the time and sky position of the merger.

Paul Baker
West Virginia Univ

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