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Pulsar Timing Arrays: No longer a blunt instrument for Gravitational Wave Detectio[1] ANDREA LOMMEN, Franklin and Marshall College, NORTH AMERICAN NANOHERTZ OBSERVATORY OF GRAVITATIONAL WAVES COLLABORATION — The limits that pulsar timing places on the energy density of gravitational waves in the universe are on the brink of limiting models of galaxy formation and have already placed limits on the tension of cosmic strings. Pulsar timing has traditionally focused on stochastic sources, but recent research has demonstrated that pulsar timing will (1) offer a rich variety of information on individual gravitational wave sources including waveform, direction and luminosity distance, (2) test alternative theories of gravity, (3) allow us to observe the same gravitational wave source at two different epochs separated by thousands of years. In other words, pulsar timing is a shrewd and versatile gravitational wave detection instrument

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