



Physics Colloquium



Thursday, October 1st at 3:30PM in SC234

Dr. Joe Romano

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Searching for stochastic gravitational waves using pulsar timing arrays

In this talk, I will describe how scientists are using the ticks of Nature's most precise clocks (i.e., pulsars) to search for the background noise of gravitational waves produced by binary systems of super-massive black holes in the centers of distant galaxies. I will also provide an acoustical analogy of a pulsar timing array, which uses a pair of metronomes and a microphone to illustrate several techniques in real pulsar timing---the most important of which, for detecting gravitational waves, are correlations between the timing measurements for pairs of pulsars in the array.

Refreshments at 3:00PM in SC 103