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Neutrino pair radiation from pulsar binaries

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Pulsar binaries can be used for robust probes of new physics. There are two main reasons for this. First, there exists an abundance of high precision experimental data on orbital period decays of pulsar binaries. Second, pulsars are extreme astrophysical objects for which BSM effects can be significantly enhanced by large particle number densities. In my talk, I will discuss the use of pulsar binaries for new physics searches. As a particular example, I will talk about the neutrino pair radiation by pulsar binaries in a gauged $L_\mu - L_\tau$ scenario.

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