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Modeling gravitons as either classical or quantum mechanical, using experimental Alicki Van Ryn experimental realization[1] ANDREW BECKWITH, Chongquing University Department of Physics (PRC) — This document uses the Alicki Van Ryn experimental procedure used intially for photons which are spin 1/2 for spin 2 gravitons as a thought experiment to verify/ predict if gravitons and gravitational waves would have either classical or quantum properties. While the experiment is undoable with TODAYS technology, the thought experiment generalizes to spin 2 particles techniques which in principle could lead to determining if gravity is classical or quantum mechanical in nature. The talk is based upon an accepted for publication article (Open journal of Micro Physics) and is an attempt for probing if either loop quantum gravity and/or string theory techniques are appropriate for the origins and genesis of gravitational radiation. If gravity is primarily classical in its foundations, the effect this finding would have on early universe cosmology models would be profound and fundamental.

[1]Using the Alicki Van Ryn model for spin 1/2 photons to model an experiment to determine if gravitons, spin 2, would have either classical or quantum charateristics

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