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GRAVITY AND THE SPIN-2 PLANAR SCHRÖEDINGER EQUATION

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Abstract

A Schrödinger equation proposed for the GMP gapped spin-2 mode of fractional Quantum Hall states is found from a novel non-relativistic limit, applicable only in 2+1 dimensions, of the massive spin-2 Fierz-Pauli field equations. It is also found from a novel null reduction of the linearized Einstein field equations in 3+1 dimensions, and in this context a uniform distribution of spin-2 particles implies, via a Brinkmann-wave solution of the non-linear Einstein equations, a confining harmonic oscillator potential for the individual particles.

Date : Wednesday, September 26, 2018

Time: 14:00

Place: IMBM Seminar Room, Boğaziçi University South Campus