Winter Mini Workshop on Gravity and Cosmology



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On square roots of matrices in massive and bimetric gravity

Tuesday, 22 January 2019 14:00 (45 minutes)

The modern theory of ghost-free massive gravity hinges upon the notion of a square root of a matrix. This is non-trivial and not unique. It makes the standard perturbation theory in terms of matrices problematic, and in some cases even impossible. I will describe the mathematics behind these issues, and also discuss a method of dealing with perturbation theory around a given solution in terms of eigenvalues instead of matrices.

Presenter: Prof. GOLOVNEV, Alexey (St. Petersburg State University)

Session Classification: GWs, CMB, LLS...