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PHYSICS COLLOQUIA

Gravitation at the microscopic scale

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Abstract: It is usual assumed that gravity does not play a significant role in elementary particle physics, unless processes at the experimentally inaccessible Planck scale are considered.

After a general overview on microscopic consequences of gravitation challenging this assumption, I will focus on a proposal to test the weak equivalence principle using genuine quantum states of matter. Some implications of possible unification schemes of gravity and weak interactions at the attometer scale will be finally discussed.

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Grassano Room