ID de Contribution: **789**   Type: **Parallel session talk**

Gravitational Energy in Massive Gravity

vendredi 22 juillet 2011 16:30 (15 minutes)

In GR the static gravitational potential of a self-gravitating body goes as 1/r at large distances and any slower decrease leads to infinity energy. We show that in a class of four-dimensional massive gravity theories there exists spherically symmetric solutions with finite total energy, featuring an asymptotic behavior slower than 1/r and generically of the form r^γ. This suggests that configurations with nonstandard asymptotics may well turn out to be physical. The effect is due to an extra field coupled only gravitationally, which allows for modifications of the static potential generated by matter, while counterbalancing the apparently infinite energy budget.

Auteurs principaux: Dr COMELLI, Denis (INFN Ferrara); Dr NESTI, Fabrizio (ICTP Trieste); Dr PILO, Luigi (Department of Physics University of L'aquila)

Orateur: Dr PILO, Luigi (Department of Physics University of L'aquila)

Classification de Session: Cosmology and Gravity