



Grupo de Física Matemática
da Universidade de Lisboa

SEMINÁRIO DE FÍSICA-MATEMÁTICA

Dia 5 de Junho de 2009 (sexta-feira), às 14h30m, na Sala B1-01

« Alternative viewpoint on p-brane dynamics »

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Abstract

Within a framework of classical general relativity it is possible to analyze the dynamics of localized objects - particles, strings, membranes and p-branes in general. From very general assumptions we derive equations of motion for these objects in curved spacetime, using suitable mathematical language developed for this purpose. Then we compare them to postulated dynamics of string theory. It turns out that the standard Nambu-Goto string is just one of the many possibilities for the dynamics of a stringlike object. We give appropriate classification of possible different dynamics of strings based on physical grounds and provide suitable interpretation. Those results are easily extended to a general p-brane case.

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