Applied Mathematics Seminar

"NON-STATIONARY ENERGY IN GENERAL RELATIVITY"

BY

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Abstract: Using the time evolution equations of (cosmological) General Relativity in the first order Fischer-Marsden form, we construct an integral that measures the amount of non-stationary energy on a given spacelike hypersurface in D dimensions. The integral vanishes for stationary spacetimes; and with a further assumption, reduces to Dain's invariant on the boundary of the hypersurface which is defined with the Einstein constraints and a fourth order equation defining approximate Killing symmetries.

Date: November 28, 2019
Time: 14:40
Place: Mathematics Seminar Room, SA- 141