



Mês de: **Abril 2010**

SEMINÁRIO DE GEOMETRIA

Dia 30 de Abril (sexta-feira), às 16h30, na Sala B3-01

“Singular Dressing Actions on Harmonic Maps” (Part II)

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Abstract:

In this talk we show that any harmonic map ϕ from a two-sphere S^2 into an arbitrary compact semisimple matrix Lie group G may be reduced to a constant by using the *singular dressing actions* introduced by Bergvelt and Guest; this reduction induces a factorization of ϕ into flag factors $S^2 \rightarrow G$, and the singular dressing actions are produced from curves of *simple factors* (rational loops having a minimum number of singularities, whose dressing action can be computed explicitly) for $G^{\mathbb{C}}$. A version of this result for an arbitrary inner symmetric space G/K is established. We also present some generating theorems for the rational loops of the fundamental representations of $Sp(n)^{\mathbb{C}}$ and $SU(n)^{\mathbb{C}}$: in both cases the class of generators is slightly larger than the class of simple factors.

This is joint work with Nuno Correia.

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