



Mês de: **Dezembro 2008**

SEMINÁRIO DE GEOMETRIA

APLICAÇÕES HARMÓNICAS

Dia 12 de Dezembro (sexta-feira), às 15h, na Sala B3-01

Explicit constructions of harmonic maps into the unitary group
and Grassmannians

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Abstract:

We give a completely explicit formula for all harmonic maps of finite uniton number from a Riemann surface to the unitary group $U(n)$ in any dimension, and so *all* harmonic maps from the 2-sphere, in terms of freely chosen meromorphic functions on the surface and their derivatives, using only combinations of projections and avoiding the usual $\bar{\partial}$ -problems or loop group factorizations. We shall also derive an explicit formula yielding all harmonic maps from S^2 into $G_k(\mathbb{C}^n)$.

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