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# SEMINÁRIO DE GEOMETRIA

**Dia 28 de Outubro (sexta-feira), às 14H00, na sala 6.2.33**

## Moduli spaces of Hitchin pairs for the indefinite unitary group $U(p,q)$

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Abstract:

$U(p,q)$ -Hitchin pairs on a Riemann surface consist of a pair of holomorphic vector bundles together with a pair of twisted holomorphic maps between them, one in each direction. The natural stability condition for  $U(p,q)$ -Hitchin pairs depends on a real parameter. I will talk about wall crossing for the moduli spaces of polystable  $U(p,q)$ -Hitchin pairs as the stability parameter varies. The fact that the quiver associated to these objects contains an oriented cycle introduces new phenomena which was not present in the previously studied cases of triples and chains. From the obtained results we can deduce the birationality of the moduli spaces in a certain range of the parameter.

*Seminário financiado por Fundos Nacionais através da FCT – Fundação para a Ciência e a Tecnologia  
no âmbito do projeto UID/MAT/04561/2013*