



CENTRO DE
MATEMÁTICA
UNIVERSIDADE DO PORTO

GEOMETRY AND TOPOLOGY SEMINAR

Hitchin moduli spaces of hyperkähler dimension one

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Abstract. Hitchin moduli spaces are non-compact hyperkähler manifolds parameterising solutions of gauge-theoretic equations on a Riemann surface. There are two distinguished complex structures for which this gauge-theoretic moduli space can be realised as a moduli space of Higgs bundles and as a moduli space of local systems respectively on the Riemann surface. In this talk I will focus on describing ten Hitchin moduli spaces on the Riemann sphere of hyperkähler dimension one (i.e. non-compact K3 surfaces) from these two perspectives. The moduli spaces of Higgs bundles are all given as complements of a singular fibre in a rational elliptic surface, whereas the moduli spaces of local systems are all affine cubic surfaces.

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15H30

Room 1.09

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