

Contribution Title:	EXTREMAL BLACK HOLES AND NILPOTENT ORBITS
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The stationary solutions of a large variety of (super)gravity theories can be described within a non-linear sigma model G/H^* coupled to Euclidean gravity in three-dimensions, for which G is a simple group and H^* a non-compact real form of its maximal compact subgroup. I will explain how the absence of naked singularities in four dimensions requires the G Noether charge in 3D to satisfy a characteristic equation that determines it in function of the mass, the NUT charge and the electro-magnetic charges of the solution. Within this framework, the moduli space of black holes solutions can be characterised in term of H^* orbits. In particular, I will discuss the general mult-black holes solutions of Papapetrou-Majumdar type in $N=8$ supergravity, which include the known $1/8$ BPS solutions depending on 32 harmonic functions, as well as non-BPS solutions depending on 29 harmonic functions.