

Universidad del País Vasco Euskal Herriko Unibertsitatea The University of the Basque Country

Seminarios de Física Teórica Fisika Teorikoa: Hitzaldiak

Non-Abelian gauge fields in (super-) gravity and superstrings

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Abstract We review the construction of solutions of theories of gravity coupled to non-Abelian gauge fields and study a particular example of a extremal black hole with non-Abelian hair that can be embedded in 10-dimensional Heterotic Superstring Theory. We show how the first-order alpha-prime corrections corresponding to terms quadratic in the curvature can be computed and we obtain, for the first time in the literature, a solution of this kind describing not just the near-horizon region, but the whole spacetime. Finally, we compute the entropy using the Wald formula.

Prof. A. Chamorro Seminar Room, Dept. of Theoretical Physics, Corridor 4.-2. **THURSDAY**, April 25th, 2018 Time:11:40 am