

# Solitons and black holes in nonabelian gauge theories coupled to gravity

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## **Abstract**

An introductory survey is given about particle-like (“solitonic”) and black hole solutions when gravity is coupled to non-abelian gauge fields. Since the rather unexpected (numerical) discovery of a family of static, spherically symmetric solutions of the Einstein-Yang-Mills equations describing asymptotically flat space-times by Bartnik-McKinnon in 1988, a number of mathematicians and physicist took active interest in the subject and I try to give an overview of some of the most important, partly numerical results.