1000-53-148 **Vestislav Apostolov*** (`apostolo@math.uqam.ca`), Dép. de mathématiques, Université du Québec à Montréal, C.P. 8888, Centre-ville, Montréal, Québec H3C 1P8, Canada. *Hamiltonian two-forms in Kähler Geometry.*

I shall define the notion of a Hamiltonian two-form on a Kähler manifold and explain how such forms naturally arise in a number of explicit constructions of extremal Kähler metrics. I shall then survey some recent results (obtained in collaboration with D. Calderbank, P. Gauduchon and C. Tonnesen-Friedman) which provide a classification of the compact Kähler manifolds carring hamiltonian two-forms. Some applications will be discussed. (Received August 23, 2004)