



Title: Extremal Kaehler metrics and stability on a class of ruled manifolds (joint work with V. Apostolov, D. Calderbank, C. Toennesen-Friedman)

Paul Gauduchon Centre de Mathématiques Laurent Schwartz CMLS, Ecole Polytechnique Palaiseau Cedex FRANCE

Abstract: Extremal Kaehler metrics of non-constant scalar curvature have been first constructed by Calabi in the early 80's. Calabi's approach can be extended to provide extremal Kaehler metrics on a large class of ruled manifolds at least in "small" Kaehler classes, whereas it may fail near the boundary of the (admissible) Kaehler cone.

We show that this phenomenon, firstly observed by C. Toennesen-Friedman in the late 90's, is directly connected to stability issues, with a special emphasis on the limiting case.