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Variational problems in conformal geometry

Abstract: On a complex manifold one can define special classes of Hermitian metrics by imposing that the associated fundamental form is in the kernel of a special differential operator. One could expect that these metrics arise as critical points of naturally defined functionals on the space of Hermitian metrics. We will investigate some of these functionals, restricted to a conformal class of normalized Hermitian metrics, discussing the geometric meaning of their critical points. This is a joint work with Daniele Angella, Nicolina Istrati and Alexandra Otiman.