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Ved V Datar* (veddatar@math.rutgers.edu). *Conical soliton metrics on Kähler manifolds.*

Recently there has been a lot of interest in conical metrics on Kähler manifolds, culminating in the resolution of the Yau-Tian-Donaldson conjecture last year. In this talk, we first give criteria for the existence of conical Kähler-Einstein metrics (KE) and Kahler-Ricci solitons (KRS) on toric manifolds, in relation to the greatest Ricci and Bakry-Emery Ricci lower bound. We then describe how to connect any two toric manifolds of the same dimension by a continuous path of toric manifolds with conical KE metrics. We end by relating the greatest Bakry-Emery Ricci lower bound on general Fano manifolds to the continuity method for solving the KRS equation. (Received September 08, 2013)