962-52-1048　　　　**Eric A Carlen*** (`carlen@math.gatech.edu`), Eric A. Carlen, School of Math, Georgia Tech, Atlanta, GA 30332. *Convex Functions and Geodesics for Several Operator Metrics.*

In recent years, a number of interesting Riemannian metrics have been introduced on the space of density matrices on a Hilbert Space. Associated with each metric is a class of convex functionals. We examine these classes for several natural metrics. In the commutative case, such ideas applied to the 2-Wasserstein metric have led to new proofs of hypercontractivity. The work presented here is directed at a non-commuative analog. (Received October 01, 2000)