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Jennifer Erway* (erwayjb@wfu.edu), Winston-Salem, NC. *Compact Representations of Quasi-Newton Matrices.*

The compact representation of a limited-memory quasi-Newton matrix has applications in both numerical linear algebra and optimization. In this talk, we review this representation of BFGS matrices, and then present the generalization of this—allowing one to compute the compact representation for any member of the Broyden convex class. Additionally, we discuss several specific applications in linear algebra as well as an application in optimization. (Received September 18, 2016)