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**Scott Boivin Lindstrom\*** ([scott.lindstrom@uon.edu.au](mailto:scott.lindstrom@uon.edu.au)), V123 Mathematics Building,  
University Drive, Callaghan, NSW 2308, Australia. *Proximal Averages for Minimization of  
Entropy Functionals.*

We provide a basic overview of the convex analysis of the Lambert W function and go on to explore its role in duality theory where it appears quite naturally in the closed forms of the convex conjugates for important functions. We exploit these forms to solve minimization problems for entropy functionals. We then explore the analogous relevance of the Lambert W function for computing proximal averages, solving another set of entropy functionals and revealing several advantages of the homotopy afforded therein.

This presentation includes work from collaborations with Jonathan M. Borwein and Heinz H. Bauschke. (Received December 04, 2017)