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*Approximate Subdifferential Computation in Computational Convex Analysis*

Computational convex analysis focuses on the computation of convex operators that routinely appear in convex analysis e.g. Legendre-Fenchel conjugate, Moreau envelope, etc. After recalling what computation the (open source) CCA numerical library allows, we will switch the focus from convex transforms like the Legendre-Fenchel transform to convex operators like the subdifferential. We will present results on efficiently computing the approximate subdifferential of a convex univariate function.

Joint work with W. Hare, A. Bajaj, and D. Kumar.