

1147-90-901

**Roummel Marcia\*** (rmarcia@ucmerced.edu), 5200 N. Lake Road, Merced, CA 95343, and  
**Jennifer Erway, Joshua Griffin** and **Riadh Omheni**. *Quasi-Newton Methods for Off-the-Shelf  
Machine Learning*.

Machine learning (ML) problems are often posed as highly nonlinear and nonconvex unconstrained optimization problems. Methods for solving ML problems based on stochastic gradient descent generally require fine-tuning many hyperparameters. In this talk we discuss alternative approaches for solving ML problems based on a quasi-Newton trust-region framework that does not require extensive parameter tuning. We will present numerical results that demonstrate the potential of the proposed approaches. (Received January 29, 2019)