

*Department of Mathematics,
University of California San Diego*

Center for Computational Mathematics Seminar

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Levenberg-Marquardt Algorithms for Nonlinear Inverse Least Squares

Abstract:

Levenberg-Marquardt (LM) algorithms are a class of methods that add a regularization term to a Gauss-Newton method to promote better convergence properties. This talk presents three works on this class of methods. The first discusses a new method that simultaneously achieves all types of state of the art convergence guarantees for unconstrained problems. Stochastic LM is discussed next, which is an algorithm to handle noisy data. An example is presented on data assimilation. Finally, a LM method is presented to handle equality constraints, with examples from inverse problems in PDEs.

Tuesday, February 23, 2021

11:00 AM

Zoom Meeting ID: 950 6794 9984
