



## POSTDOCTORAL POSITION

### NONCONVEX AND DISTRIBUTED OPTIMIZATION

#### COLORADO SCHOOL OF MINES DEPARTMENT OF ELECTRICAL ENGINEERING

Professors Michael Wakin and Gongguo Tang in the Department of Electrical Engineering at the Colorado School of Mines seek to hire one Postdoctoral Researcher for a project involving theory and algorithms for large-scale nonconvex and distributed optimization. The position is available immediately and has an expected end date of September 2019.

This project is part of the new DARPA Lagrange program, which seeks to develop new mathematical approaches to optimization problems in uncertain, dynamic, multiscale, and high-dimensional settings.

Along with collaborators at Rutgers University and the University of Wisconsin-Madison, the Colorado School of Mines team will focus on large-scale machine learning problems involving nonconvex matrix-valued optimization. The project involves geometric analysis of nonconvex landscapes and algorithmic innovations for navigating these landscapes, all of this in both centralized and distributed optimization settings. The Postdoctoral Researcher will work in close contact with team members at all three universities.

Prior experience in developing optimization theory and algorithms is required. Experience with nonconvex optimization, distributed optimization, or low-rank matrix optimization is strongly desired.

Interested candidates should contact Michael Wakin ([mwakin@mines.edu](mailto:mwakin@mines.edu)) and Gongguo Tang ([gtang@mines.edu](mailto:gtang@mines.edu)) as soon as possible and include a CV and description of any relevant prior work.

