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Hum Nath Bhandari* (hbhandari@rwu.edu), One Old Ferry Road, Bristol, RI. *Developing Hybrid PSO Algorithm Models Using the Cyclic Coordinate Descent (CCD) Local Optimizer*. Preliminary report.

The particle swarm optimization (PSO) algorithm has been successfully applied in many scientific and engineering fields to solve global optimization problems. We present a hybrid implementation of this algorithm which harnesses the simplicity and effectiveness of the base PSO algorithm with a global restart component and a local optimizer (called the MPSO-CCD). This implementation is easy to parallelize, and we also relate our experience with this parallel version (PMPSO-CCD). We present a few of the standard benchmark problems to illustrate the effectiveness and resilience of these implementations. (Received September 16, 2019)