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Jon Lee* (jonlee@us.ibm.com), 1101 Kitchawan Road, Yorktown Heights, NY 10598. *A PTAS for matroid matching.*

Matroid parity was introduced in the '70s as a natural generalization of polynomially-solvable matching in general graphs and matroid intersection. Shortly thereafter, it was shown to have exponential complexity in the oracle model and to be efficiently solvable for linear matroids (in the cardinality case). We give a PTAS for the case of the oracle model based on a natural local search, and we show that the natural LP has poor properties. This is joint work with Maxim Sviridenko and Jan Vondrak. (Received September 08, 2010)