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Art Duval, Bennet Goeckner, Caroline Klivans* (klivans@brown.edu) and **Jeremy Martin**. *A non-partitionable Cohen-Macaulay simplicial complex.*

A long-standing conjecture of Stanley states that every Cohen-Macaulay simplicial complex is partitionable. We disprove the conjecture by constructing an explicit counterexample. Due to a result of Herzog, Jahan and Yassemi, our construction also disproves the conjecture that the Stanley depth of a monomial ideal is always at least its depth. (Received August 05, 2015)