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Ian Runnels* (iir4pk@virginia.edu). *Effectively Generating RAAGs in MCGs.*

A now classical result in the theory of mapping class groups states that given collection of independent pseudo-Anosov mapping classes f_1, \dots, f_n , there is some (possibly large) power R such that f_1^R, \dots, f_n^R generate a free group of rank n . Taking reducible mapping classes instead, this no longer holds, since two reducible mapping classes can commute if they are supported on disjoint subsurfaces. However, Koberda has shown that there is again some power R such that f_1^R, \dots, f_n^R generate a *right-angled Artin group*. His proof relies on a choice of hyperbolic metric and playing ping-pong with geodesic laminations. We give an alternate proof which relies solely on the mapping classes in question and the topology of their supporting subsurfaces, and moreover provides an explicit upper bound for R in terms of this data. (Received August 05, 2019)