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Jerzy Dydak* (jdydak@utk.edu), Matija Cencelj and Ales Vavpetic. Asymptotic dimension, Property A, and Lipschitz maps. Preliminary report.

It is well-known that a paracompact space X is of covering dimension n if and only if any map f from X to a simplicial complex K can be pushed into its n-skeleton. We use the same idea to define dimension in the coarse category. It turns out the analog of maps f from X to K is related to asymptotically Lipschitz maps, the analog of paracompact spaces are spaces related to Yu's Property A, and the dimension coincides with Gromov's asymptotic dimension. (Received September 08, 2009)