1151-05-300   **Richard Kenyon*** (`richard.kenyon@yale.edu`). *Which polygons can be tiled by squares?*

An aXb rectangle can be tiled with squares iff a/b is rational. Which rectilinear polygons can be tiled with squares (not necessarily of equal size)? We answer this question for polygons of up to 10 sides, as well as some simple cone surfaces. This is joint work with David B. Wilson (Received August 20, 2019)