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Clark Barwick* (clarkbar@math.mit.edu), Department of Mathematics, 2-263, Massachusetts Institute of Technology, 77 Massachusetts Ave., Cambridge, MA 02143. *The algebraic K-theory of higher categories*. Preliminary report.

The algebraic K -theory of the sphere spectrum \mathbf{S} is a mysterious object that at once carries information about delicate questions of number theory and incredible information about high-dimensional manifolds. We discuss a program developed by Waldhausen and refined by Hopkins and Rognes to compute $K(\mathbf{S})$ using the chromatic tower. We extend these ideas to present a program to prove the Ausoni–Rognes Chromatic Red Shift Conjecture. (Received July 18, 2013)