1046-03-1667 Wesley Calvert, Dept. of Mathematics & Statistics, Faculty Hall 6C, Murray State University, Murray, KY 42071, and Russell Miller* (Russell.Miller@qc.cuny.edu), Mathematics Dept., Queens College – CUNY, 65-30 Kissena Blvd., Flushing, NY 11367. Real Computability and Manifolds. Preliminary report.

We use two versions of the Blum-Shub-Smale notion of computability on real numbers to produce reasonable definitions of real-computable manifolds. We then consider questions about the decidability of nullhomotopy and simple connectedness for such manifolds. (Received September 16, 2008)