1024-37-31 **Evelyn Sander*** (esander@gmu.edu), Department of Mathematical Sciences, MS-3F2, George Mason University, 4400 University Drive, Fairfax, VA 22030, and **James A. Yorke**. *A classification of explosions.* Preliminary report.

An explosion is a discontinuous change in the size of the recurrent set as a parameter is varied. Explosions can lead to crises of chaotic attractors in two dimensions, and unstable dimension variability in three dimensions. I discuss results relating to the one-dimensional version of a 1976 conjecture of Newhouse and Palis, which says that explosions always occur as a result of saddle-node bifurcations and tangencies of stable or unstable manifolds of periodic points. (Received December 05, 2006)