## 1022-30-20

Stephen W. Semmes\* (semmes@rice.edu), Department of Mathematics, Rice University, Houston, TX 77251. Some remarks about pseudomanifolds.

As on p148 of Spanier's classic text on algebraic topology, a *pseudomanifold* is commonly defined as a simplicial complex with singularities contained in a set of codimension 2. Of course one can consider more general spaces with relatively small sets of singularities, and bring analysis into the picture with various geometric conditions, related classes of functions, etc. For instance, the regular part of a pseudomanifold is normally asked to be connected, and one can use the concept of uniform domains as a natural scale-invariant way in which to deal with this in general, with higher-order versions that can be applied to the study of the singularities. There are also connections with bilipschitz and quasiconformal mappings, and plenty of examples. (Received August 20, 2006)