

1021-57-71

**Denis Blackmore\*** (deblac@m.njit.edu), Dept. of Math. Sciences, New Jersey Institute of Technology, University Heights, Newark, NJ 07102-1982. *Neighborhoods for Computational Geometric Objects*. Preliminary report.

We explain how the class of geometric objects having Whitney regular stratifications is ample enough to include most sets of interest in the field of computational topology, yet sufficiently structured to be well suited for both computational and differential topological analysis. Analogs of tubular neighborhoods are described for these objects, and applications of these constructs to questions related to effectively computable means for testing topological and isotopic consistency are touched upon. This represents certain aspects of preliminary joint work with T. Peters on localizing isotopy equivalence algorithms. (Received August 22, 2006)