

**Meeting:** 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-54-837      **Elliott S. Elliott\*** (elliott@ms.uky.edu), 613 Hidden Point Drive, Lexington, KY 40517.

*Infinite Simple Homotopy for Cell Complexes.* Preliminary report.

J. H. C. Whitehead developed simple homotopy theory for finite simplicial and CW complexes. We extend this theory to the larger category of finite cell complexes, where a *cell complex*  $K$  is a disjoint union of open topological cells  $e_n$  of varying dimensions such that for each  $n$ ,  $e_n$  is attached to the preceding cells.

Non-compact versions of Whitehead's theory were worked out by L. C. Seibenmann for locally finite simplicial complexes, and by Farrell and Wagoner for strongly locally finite CW complexes. We also extend these theories to the larger category of strongly locally finite cell complexes. (Received September 30, 2004)