Meeting: 999, Nashville, Tennessee, SS 3A, Special Session on Index Theory and the Topology of Manifolds

999-57-70 **Tilman Bauer**, **Nitoo Kitchloo**, **Dietrich Notbohm** and **Erik K Pedersen***
(erik@math.binghamton.edu), Dept. of Math. Sci., Binghamton University, Binghamton, NY 13850. *Smoothing Loop Spaces.*

Let X be the loops on a CW complex B. We prove the following theorem: X is homotopy equivalent to a compact, smooth, parallellizable manifold if and only if the homology is finitely generated as an abelian group. (Received August 07, 2004)