1024-37-254 **Lorenzo Sadun*** (sadun@math.utexas.edu). *Topology of (some) tiling spaces without finite local complexity.*

A basic assumption of tiling theory is that adjacent tiles can only meet in a finite number of ways, up to rigid motion. This is called "finite local complexity". However, a number of interesting substitution tilings do not have this property. They have "fault lines", along which tiles can slide past one another. We investigate the topology of a class of tilings of this type. We show that these spaces are inverse limits of compact finite-dimensional CW complexes, and use the inverse limit structure to compute their cohomology. This is joint work with Natalie Priebe Frank, and the tilings in question are of a type described in her talk at this conference. (Received January 09, 2007)