

Meeting: 1004, Bowling Green, Kentucky, SS 14A, Special Session on Geometric Topology and Group Theory

1004-57-94 **Stephan T Rosebrock*** (rosebrock@ph-karlsruhe.de), Paedagogische Hochschule Karlsruhe,
Bismarckstr. 10, 76133 Karlsruhe, Germany. *Generalized Knot Complements and Aspherical
Ribbon Disc Complements.*

Some aspects of standard knot-theory are generalized to all ribbon-disc complements. The asphericity of the complement of properly embedded links in certain contractible singular 3-manifolds is studied. These 3-manifolds should be thought off as replacements of the 3-ball in the classical setting. The results are applied to show the asphericity of 2-complexes modelled on labelled oriented graphs that correspond to alternating prime projections on some surface. (Received January 19, 2005)