

1037-57-313

**Hee Jung Kim\*** ([heekim@math.lsu.edu](mailto:heekim@math.lsu.edu)), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803, and **Daniel Ruberman** ([ruberman@brandeis.edu](mailto:ruberman@brandeis.edu)), Department of Mathematics, Brandeis University, Waltham, MA 02454. *Smooth Surfaces with Non-simply-connected Complements.*

The Fintushel-Stern rim surgery technique and its variations have given rise to many constructions of interesting smoothly knotted surfaces in 4-manifolds. For the most part, both the ambient manifold and the complement of the surface have been assumed to be simply-connected. In this talk, we will provide several constructions of smoothly knotted surfaces in simply connected 4-manifold whose complements have nontrivial (and not necessarily cyclic) groups. In some cases, we show that all of these surfaces have the same topological type. (Received February 05, 2008)