

1070-57-118

Shawn Rafalski* (srafalski@fairfield.edu), Fairfield University, Fairfield, CT. *Small hyperbolic polyhedra.*

The existence (or non-existence) of an embedded essential surface provides important information about a 3-manifold. We will discuss an orbifold analogue of this notion, by analyzing the hyperbolic polyhedral 3-orbifolds that contain no embedded essential 2-suborbifolds (up to a canonical decomposition). We will also address the related question of the classification of triangle subgroups of 3-dimensional hyperbolic polyhedral reflection groups. (Received February 04, 2011)