1041-22-140 **Christopher W Seaton*** (`seatonc@rhodes.edu`), Mathematics and Computer Science Department, Rhodes College, 2000 N. Parkway, Memphis, TN 38112, and **Carla Farsi** (`farsi@euclid.colorado.edu`), Department of Mathematics, University of Colorado at Boulder, Campus Box 395, Boulder, CO 80309-0395. Γ-*sectors of an orbifold, Euler characteristics, and vector fields.*

If Q is an orbifold and Γ a finitely generated group, we introduce the Γ-sectors of Q, a disconnected orbifold given by the space of (conjugacy classes of) homomorphisms from Γ into a local group G_x of Q. This construction generalizes that of the inertia orbifold (corresponding to the case when Γ is the integers), the k-multi-sectors (corresponding to the case where Γ is the free group with k generators), and is used to extend Tamanoi's definition of generalized orbifold Euler characteristics to orbifolds that are not global quotients (i.e. the quotient of a manifold by a finite group). We introduce Euler classes that represent these generalized orbifold Euler characteristics and use them to define a complete obstruction to the existence of nonvanishing vector fields on orbifolds. (Received August 08, 2008)

1