

1023-20-462

Ruth Charney* (charney@brandeis.edu) and **John Crisp** (jscrisp@gmail.com). *Hyperbolic Deligne complexes and Artin groups.*

Let Y be the complement of the complex hyperplane arrangement associated to a real reflection group W . Then the fundamental group of Y/W is the Artin group associated to W . It has long been known that the universal cover of Y is homotopy equivalent to a simplicial complex known as the Deligne complex. In some cases, the Deligne complex has been shown to support a metric of non-positive curvature, in which case it is contractible. In this talk, we give sufficient conditions for the Deligne complex to support a metric of strictly negative curvature and we show that, under these conditions, the associated Artin groups are (weakly) relatively hyperbolic. (Received September 13, 2006)