1067-55-1342 **Aaron David Valdivia*** (avaldivi@math.fsu.edu), 1306 1/2 B ML King Jr. Blvd, Tallahassee, FL 32303. *Asymptotics of minimal dilatation pseudo-Anosov mapping classes on rays in the gn-plane.*

A pseudo-Anosov mapping class is one that locally stretches a surface in one direction and contracts the surface in another, the stretching factor is called the dilatation. It is an open problem to determine the mapping class with minimal dilatation for a surface of genus g with n punctures. By considering a lattice we call the gn-plane and assigning each lattice point the minimal dilatation for a genus g surface with n punctures we can consider the asymptotic behavior of the minimal dilatations on rays in the gn-plane. In particular we expand known results to rational rays through the origin. (Received September 22, 2010)