

1023-20-1027 **Jerome los*** (los@cmi.univ-mrs.fr), LATP, 39 Rue F.Joliot Curie, 13453 Marseille, France, and
Jerome Fehrenbach. *Roots and symetries of pseudo-Anosov.*

For a pseudo-Anosov mapping class element on a surface with a fixed marked point we discuss the following question from an algorithmic point of view: is this element a power and if yes can we find a "root"? Another question is the existence of a symetry (finite order that commutes with the given element). In other words we want to find the centralizer of the given pseudo-Anosov. Surprisingly, the answer relly strongly on the local properties of the actual pseudo-Anosov homeomorphism arround the fixed point. (Received September 24, 2006)