YVON VERBERNE, The University of Western Ontario
Grand arcs and the Nielsen-Thurston Classification

The Nielsen-Thurston classification tells us that the elements in the mapping class group of a finite type surface are either finite order, reducible, or pseudo-Anosov. We discuss this classification and how to obtain a similar classification theorem when one considers the action of the mapping class group on a combinatorial complex. In the case of infinite type surfaces, the question of what a classification type theorem for elements in the mapping class group would be is open. In this talk, we will discuss what a generalization of a pseudo-Anosov mapping class may be in the context of the action of the mapping class group on a combinatorial complex, and open problems which surround this approach.