Susumu Hirose\* (hirose@ms.saga-u.ac.jp), Department of Mathematics, Faculty of Science and Engineering, Saga University, Saga, Saga 840-8502, Japan. Some homological properties on a handlebody group.

There are many (co)homological properties on a handlebody group (a mapping class group of a handlebody), which still remains to be found.

In this talk, I will introduce the following (co)homological properties; if  $g \ge 2$ , the virtual cohomological dimension of the mapping class group of a three-dimensional handlebody of genus g is equal to 4g-5 and its Euler number is equal to 0. (Received September 21, 2006)