

1046-51-290

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*Categorification of the Burau Representation using Contact Geometry.* Preliminary report.

A study of interesting dividing sets and their associated contact structures on  $D_3 \times [0, 1]$ , where  $D_3$  is the disk with 3 punctured points, with a calculation of how the generators of the braid group  $B_3$ , viewed as the mapping class group of  $D_3$ , act upon them. This determines a matrix representation of  $B_3$ , which is related to the standard Burau representation. (Received August 25, 2008)