

1054-20-166

Stephen Bigelow*, Department of Mathematics South Hall, Room 66, University of California, Santa Barbara, CA 93106. *New from old representations of braid groups.*

I will describe an algorithm that, given a representation of the braid groups, produces a new and often more interesting representation. It uses a single universal representation from braid groups to groups of matrices with entries in a group ring. This should be easy and (I hope) interesting for a general audience. I will then discuss hidden motivations and future applications. This is joint work with Jianjun Tian, and extends work of Long and Moody. (Received September 13, 2009)