

Braid groups, the topology of configuration spaces, and homotopy groups

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102 Bradley Hall, 4:00 pm
(Tea 3:30 pm Math Lounge)

Abstract

This talk explores one way in which Artin's braid groups encode maps from spheres to other natural spaces. One example which is given by elementary "cabling of braids" encodes information about maps from the n -sphere, $n > 1$, to the 2-sphere. An overview of these structures, as well as connections to Vassiliev invariants of pure braids and associated Lie algebras of Kohno-Drinfel'd will be given. This talk is based on joint work with J. Berrick, Y.L. Wong, and J. Wu.