1102-46-202 **Ionut Chifan*** (ionut-chifan@uiowa.edu), 14 MacLean Hall, Iowa City, IA 52242, **Adrian Ioana** (aioana@math.ucsd.edu), AP&M 5210, Department of Mathematics UCSD, 9500 Gilman Drive, La Jolla, CA 92093, and **Yoshikata Kida** (kida@math.kyoto-u.ac.jp), Kyoto, 6068502, Japan. *Some structural results for the von Neumann algebras associated with braid groups.*

In this talk I will present some recent rigidity results for the von Neumann algebras associated with actions of braid groups. We will show that any free ergodic pmp action of the central quotient of the braid group with at least five strands on a probability space is virtually $W*$-superrigid; this means that any such action can be completely reconstructed from its von Neumann algebra. The proof uses a dichotomy theorem of Popa-Vaes for normalizers inside crossed products by free groups in combination with a OE-superrigidity theorem of Kida for actions of mapping class groups. Other structural results such as primeness or unique tensor factorisations for the von Neumann algebras associated with braid groups will also be discussed. This is based on an initial joint work with A. Ioana and Y. Kida and a subsequent joint work with S. Pant. (Received July 28, 2014)