Title: Mapping class group actions on cohomology groups

Abstract: It is a consequence of the functoriality principles in topological field theory that the mapping class groups of surfaces act on the associated spaces of conformal blocks, also briefly called the block spaces. In the framework used in the talk, these block spaces are spaces of homomorphisms between certain representations of factorizable ribbon Hopf algebras, which can be viewed as cohomology groups of degree zero. In the talk, we explain how this construction can be extended to cohomology groups of higher degree. The talk is based on joint work with S. Lentner, S. N. Mierach, and C. Schweigert.