Nicolai Reshetikhin* (reshetik@Math.Berkeley.EDU). Invariants of links with flat connections in the complement.

Quantum groups at roots of unity with large center can be used to construct invariants of links in S^3 with flat connections in a trivial G-bundle over the complement to the link. It is interesting that similar structures are involved in the Chiral Potts model in statistical mechanics. The talk will focus on invariants of links and their properties. (Received September 13, 2008)