Twisted Alexander invariant and a partial order in the knot table Masaaki Suzuki

Twisted Alexander invariant is defined for a finitely presentable group G and a representation of G and a surjective homomorphism of G to a free abelian group. In this talk, we introduce some examples and some properties of the twisted Alexander invariant. Moreover, as an application, we consider a partial order on the set of prime knots. Let K be a knot and G(K) the knot group. For two prime knots K, K', we write $K \ge K'$, if there exists a surjective homomorphism from G(K) to G(K'). We determine this partial order " \ge " on the set of prime knots in the Rolfsen's table.