WILL CAVENDISH, McGill University
On finite derived quotients of 3-manifold groups

In this talk we will investigate the following question: which finite groups appear as the quotient of the fundamental group of a closed, orientable 3-manifold by a term in its derived series? We will show that if M is a closed, orientable 3-manifold, $G \cong \pi_1(M)$ and $G^{(n)}$ is the n-th term of the derived series of G, then the cup product paring on $H^2(G/G^{(n)})$ is isomorphic to the linking pairing on the torsion subgroup of $H_1(M)$ whenever $G/G^{(n)}$ is finite and n is at least 2.