

**Speaker:** Marcus du Sautoy

**Title:** Zeta Functions of Groups

**Abstract:** Ever since Riemann's seminal paper on the primes, the zeta function has proved a powerful weapon in the mathematicians arsenal. In recent years group theories have discovered that non-commutative analogues of classical zeta functions in number theory provide an interesting new perspective on the theory and classification of infinite and finite groups. These zeta functions encode in a Dirichlet series arithmetic information about the lattice of subgroups of an infinite group. This lecture will survey some of the new insights that these zeta functions have given group theorists.