Abstract

The Ax-Schanuel theorem is a powerful result in functional transcendence which describes ‘all the algebraic interactions’ of the exponential function, and has proven to be a powerful tool in various number theoretic and algebraic settings. We shall describe a generalization of this result to the automorphic setting – in particular the modular \( j \)-function – and how one can use model theoretic tools such as o-minimality to attack such transcendental questions. This is joint work with Jonathan Pila.