1161-11-207 **Giacomo Micheli***, University of South Florida, Department of Mathematics, Tampa, FL , and **Andrea Ferraguti** (and.ferraguti@gmail.com), Università degli Studi di Torino, Department of Mathematics, Torino, Italy. *An Equivariant Isomorphism Theorem for Arboreal Galois Representations.*

In this talk we first recall the notion of arboreal Galois representation and then we develop a method to effectively determine the set of primes p for which certain arboreal Galois representations are surjective modulo p. Our method is based on a combination of height bounds on integral points on elliptic curves over function fields in positive characteristic and the ABC theorem for function fields.

Using this technique we prove Jones' conjecture on the surjectivity of the arboreal Galois representation attached to $f = x^2 + t$ [Conjecture 6.7, Compositio Math. 43 (5) 1108–1126 (2007)].

This is a recent joint work with Andrea Ferraguti. (Received August 17, 2020)