## Algebra Seminar

17T7 is a Galois group over the rationals

John Voight University of Sydney

**Abstract:** We prove that the transitive permutation group 17T7 is a Galois group over the rationals, completing the list of transitive subgroups ordered by degree up to 23 (leaving the Mathieu group on 23 letters as the next missing group). We exhibit such a Galois extension using methods from arithmetic geometry. This is joint work with Raymond van Bommel, Edgar Costa, Noam Elkies, Timo Keller, and Sam Schiavone.

Friday, April 4, 2025, 3:00 pm Mathematics and Science Center: MSC W301

> MATHEMATICS EMORY UNIVERSITY