

1086-11-1778      **Christopher R Shill\*** (cshill@elon.edu) and **Chad Awtrey** (cawtre@elon.edu). *Galois  
2-adic Fields of Degree 12.*

An important problem in computational number theory is to classify all finite extensions of the  $p$ -adic numbers by computing important invariants which define each extension. Current research has focused on computing Galois groups of these extensions up to degree 11. Consequently for this talk, we will focus on degree 12 extensions. We will begin with a brief overview of  $p$ -adic numbers and will conclude by discussing a method for calculating Galois groups of Galois extensions of the 2-adic numbers. (Received September 24, 2012)