

1086-14-2037      **Hilaf Hasson\*** (hxx37@psu.edu). *Fields of Definition of  $G$ -Galois Branched Covers of the Projective Line.*

Riemann's Existence Theorem implies that for every finite group  $G$  there is a  $G$ -Galois branched cover of the projective line over  $\bar{\mathbb{Q}}$ . Hilbert's Irreducibility Theorem implies that if such a cover descends to a number field  $K$ , then  $G$  is realizable as a Galois group over  $K$ . Therefore understanding descent of  $G$ -Galois branched covers is relevant to the Inverse Galois Problem. I will discuss some results about the structure of the fields of definition of these covers, and briefly describe what goes into these results. (Received September 24, 2012)