Number theory
Colloquium

Galois group actions over the integers

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Abstract: According to the "normal basis theorem", if L/K is a Galois extension of fields with finite Galois group G, then there is an element x in L, such that the collection of all its conjugates, $g(x)$, for g in G, forms a basis of L as a vector space over K. This talk will describe a theme of "integral" extensions of this classical fact to situations where a finite group acts on a system of polynomial equations with integer coefficients, i.e., when a finite group acts on a "scheme over $\mathbf{Z}$".

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Mathematics and Computer Science
Emory University