



ALGEBRA SEMINAR TALK



WITH



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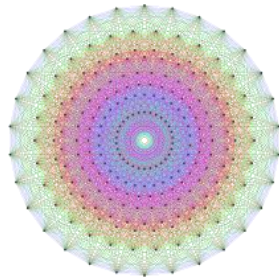
FRIDAY, SEPTEMBER 16, 2011

2:30 P.M. – Middlesex College Room 107

“Profinite groups with cyclotomic p -orientations”

Abstract: The absolute Galois group G_F of a field F is a profinite group which comes equipped with a continuous homomorphism $\theta_p: G_F \rightarrow \mathbb{Z}_p^\times$ for every prime number p . This map is induced by the p -cyclotomic field extension $F[\xi_{p^\infty}]/F$.

In this seminar I will discuss the properties which hold in this particular context. These properties are more-or-less direct consequences of the positive solution of the Bloch-Kato conjecture recently obtained by Rost and Voevodsky. Particular emphasis will be laid on the study of pro- p groups (G, θ) with a homomorphism $\theta: G \rightarrow \mathbb{Z}_p^\times$ satisfying the above mentioned properties.



T. Weigel

Beauty lies in symmetry, its breathtaking asymmetry breaks, its anticipation, invisibility beyond the horizon, in longing, in dreaming, in completion, in closing the pieces of the puzzle.

We are happy that the opening lecture of this year’s Algebra Seminar will be delivered by Thomas Weigel, whose very engaging, informal style will help the audience to connect the efforts of a few centuries to see possible Galois groups of fields and how they are connected with each other, and with the recent, spectacular proof of the Bloch-Kato conjecture.