Algebra Seminar

On Serre-Grothendieck and Purity conjectures for groups of type F_4

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Abstract: The Grothendieck-Serre conjecture asserts that for a reductive group G over a smooth affine scheme X a rationally trivial G-torsor is trivial in Zariski topology or more generally if R is a regular local ring and G is a reductive group scheme over R then the natural mapping $f : H^1(R, G) \to H^1(K, G)$ has trivial kernel. Here K is a fraction field of R. The image of f is described by the purity conjecture which says that a G-torsor over K is in the image of f if and ony if it is unramified everywhere in codimension 1.
These two conjectures are known for many groups of classical types and type G_2. In my talk we discuss next open case of groups of type F_4.

Tuesday, March 16, 2010, 4:00 pm
Mathematics and Science Center: W303

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