TETRAHEDRAL GEOMETRY/TOPOLOGY SEMINAR

ANNOUNCEMENT

DATE: **Friday, March 13, 2009**

LOCATION: **Hempfield High School**, Room 213 (directions at http://www.millersville.edu/~tgts/) followed by dinner at a place to be determined.

4:30 TALK: **Sam Smith**, Saint Joseph's University
"Why gauge groups are abelian after rationalization"

Abstract: The gauge group $G(P)$ of a principal G-bundle $P : E \rightarrow X$ is the group of G-equivariant bundle equivalences or, alternately, the group $\Gamma(Ad(P))$ of sections of the associated adjoint bundle $Ad(P) : E \times_G G^{ad} \rightarrow X$. We give at least two proofs that the identity component of this topological group is abelian after rationalization for X a finite complex. We then extend this to a compact metric space X using an old result of Eilenberg-Steenrod which expresses X as an inverse limit of finite complexes. As an application, we determine the rational H-homotopy type of the group of unitaries of a continuous trace C*-algebra. As time permits, we discuss related analysis of the group $Aut(p)$ of fibre-homotopy self-equivalences of a Hurewicz fibration $p : E \rightarrow B$.

EVERYONE WELCOME

PLEASE FORWARD THIS ANNOUNCEMENT TO ANYONE INTERESTED

The Tetrahedral Geometry/Topology Seminar is sponsored jointly by
Elizabethtown College, Franklin & Marshall College, Lebanon Valley College and Millersville University.