Topology Seminar

Donald Yau

of Ohio State University will be speaking on

Homotopical Adjoint Lifting Theorem

on April 8 at 4:30 in
MIT Room 2-131

I will discuss a homotopical version of the adjoint lifting theorem in category theory, allowing for Quillen equivalences to be lifted from monoidal model categories to categories of algebras over colored operads. The generality of this approach allows us to simultaneously answer questions of rectification and of changing the base model category to a Quillen equivalent one. Special cases of our main theorem recover many known results regarding rectification and change of model category, as well as other new results. In particular, we recover a recent result of Richter-Shipley about a zig-zag of Quillen equivalences between commutative HQ-algebra spectra and commutative differential graded Q-algebras, but our version involves only three Quillen equivalences instead of six. This is based on joint work with David White.

For information, write: senger@mit.edu