Seminar

Prof. Alan Carey

ANU Canberra

A geometric approach to twisted K-homology

Tuesday, February 25, 2014

at 9:30 h

ESI, Boltzmann Lecture Hall

Abstract: I will describe the approach to constructing twisted K homology of manifolds due to B-L Wang. It uses a generalisation of Baum-Douglas geometric cycles and gives a mathematical interpretation of D-branes. The proof that all classes in the twisted K-group can be realised this way depends on the manifold structure. For spaces with singularities a different approach is needed. I will explain an alternative idea due to Baum, Wang and myself. It is sufficiently general to construct the twisted K-homology of CW complexes.

J. Fuchs, L. Katzarkov, N. Reshetikhin, C. Schweigert

February 11, 2014