1116-19-769   **Paul Frank Baum*** (`pxb6@psu.edu`), Mathematics Department, Penn State University, University Park, PA 16802. *Expanders and K-theory for group C* algebras.*

An expander is a sequence of finite graphs $X_1, X_2, X_3, \cdots$ which is efficiently connected. A discrete group G which contains an expander as a sub-graph of its Cayley graph is a counter-example to the Baum-Connes (BC) conjecture with coefficients.

The left side of BC with coefficients "sees" any group as if the group were exact. This talk will indicate how to make a change in the right side of BC with coefficients so that the right side also "sees" any group as if the group were exact. This corrected form of BC with coefficients uses the unique minimal exact and Morita-compatible intermediate crossed product. For exact groups (i.e. all groups except the Gromov groups and the more recent Osajda examples) there is no change in BC with coefficients.

In the corrected form of BC with coefficients any Gromov group or Osajda group acting on the coefficient algebra obtained from its expander is not a counter-example. Thus at the present time (September, 2015) there is no known counter-example to the corrected form of BC with coefficients. The above is joint work with E. Guentner and R. Willett. This work is based on — and inspired by — a result of R. Willett and G. Yu, and is closely connected to results in the thesis of M. Finn-Sell. (Received September 12, 2015)