An expander or expander family is a sequence of finite graphs $X_1, X_2, X_3, \ldots$ which is efficiently connected. A discrete group $G$ which contains an expander in its Cayley graph is a counter-example to the Baum-Connes (BC) conjecture with coefficients. M. Gromov outlined a method for constructing such a group. G. Arjantseva and T. Delzant completed the construction. Any group so obtained is known as a Gromov group or Gromov monster group, and these are the only known examples of a non-exact groups.

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, there is no change in BC with coefficients.

In the corrected form of BC with coefficients a Gromov group acting on the coefficient algebra obtained from an expander is not a counter-example. Thus at the present time (September, 2014) 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. (Received September 01, 2014)