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Valentin Deaconu, S. Kaliszewski and John Quigg* (quigg@asu.edu). *Skew products of topological graphs and noncommutative duality*. Preliminary report.

For (discrete) directed graphs (and subsequently for higher-rank graphs), Raeburn et al developed a satisfying theory of coverings and fundamental groups. The coverings were closely related to skew products, and the associated C*-algebras turned out to be crossed products by coactions. In joint work with Valentin Deaconu and Steve Kaliszewski, we are (in the process of) developing a version of this theory for the topological graphs of Katsura. The noncommutative duality seems to carry over, but since the groups are no longer discrete the coverings become something else. (Received August 07, 2009)