ABSTRACT. We show that K-homologous differential operators on an oriented, Riemannian manifold M can be connected by a "controlled path" of operators. The analytic properties of these paths allows us to measure a winding number (in the sense of de la Harpe and Skandalis). To aid in the exposition we develop a variant of Baum's (M, E, f) model for K-homology. Our model removes the need for $Spin^c$ structures in the description of geometric K-homology.