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Mircea Martin* (mircea.martin@bakeru.edu), Department of Mathematics, 8th & Grove,
Baldwin City, KS 6606. *Deconstructing Euclidean Dirac Operators.*

The study of Euclidean Dirac operators is part of Clifford analysis, a recently developed far reaching extension to several real variables of single variable complex analysis, with important applications to harmonic analysis, complex analysis in several variables, and also to multi-dimensional operator theory.

The purpose of this talk is to present a quantitative Hartogs-Rosenthal Theorem concerning uniform approximation on compact sets by solutions of elliptic first-order differential operators with coefficients in a Banach algebra. This theorem, its proof, and some other related results clearly point out that certain properties of the standard Euclidean Dirac operators, originally established in the settings of Clifford analysis or single-variable complex analysis, persist under more general circumstances. Though the class of differential operators we are dealing with is rather limited, one might expect that their study will lead to a better understanding of Euclidean Dirac operators, and presumably connect their theory with some new issues of harmonic and complex analysis, or of operator theory. (Received September 10, 2006)