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Stahl-Totik Regularity for Dirac Operators.

We introduce a theory of regularity for Dirac operators with uniformly locally square-integrable operator data. This work is motivated by Stahl-Totik regularity for orthogonal polynomials and by recent developments for continuum Schrödinger operators, but contains significant new phenomena. In contrast with regularity in the contexts of orthogonal polynomials and of Schrödinger operators, regularity for a Dirac operator will be characterized by not just one scalar equality, but rather a family of equalities. We will discuss how such complications arise and consider some applications to Dirac operators with ergodic and decaying operator data. (Received March 01, 2021)