

# On Rarita-Schwinger type operators

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Rarita-Schwinger operators, also known as Stein-Weiss operators, are first order differential operators that are natural generalizations of the Dirac operator which in turn is a natural generalization of the Cauchy-Riemann operator. Here we will review the basic facts of Rarita-Schwinger operators including their fundamental solutions, basic integral formulas and their conformal invariance and conformal covariance of their solutions. We will also look at their second order analogues, which are natural analogues of the Laplace operator. We will describe their basic integral formulas and conformal invariance.

The talk is based on a joint work with J. Li