

Divisors of Zero in the Lipschitz Semigroup

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Abstract. The Lipschitz semigroup is generated by all (invertible and non-invertible) Clifford vectors. We show that all solutions of the equation $xy = 0$ (where x, y are non-zero elements of the Lipschitz semigroup) are of the form $x = av_0$, $y = v_0b$ where v_0 is an isotropic vector (i.e., $v_0^2 = 0$). This problem turns out to be useful in the construction of multisoliton solutions of integrable systems of nonlinear partial differential equations.

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