

# GENERATION OF SULLIVAN DECOMPOSABLE ALGEBRAS VIA CERTAIN PDES

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In this work we investigate properties of certain commutative differential graded algebras naturally associated to submanifolds of a infinite Jet manifold determined by finite systems of finite-order PDEs, particularly those inspired by the study of linear gauge complexes and by one-forms associated to equations of pseudo-spherical type. More explicitly, we identify linear gauge complexes as a particular type of certain twisted complexes, and we generate Sullivan decomposable algebras using hierarchies of equations of pseudo-spherical type.

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