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Section:

5. Differential Geometry and Global Analysis

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Totally umbilical graded submanifolds

Totally umbilical graded submanifolds are considered in a superspace of constant supercurvature. A totally umbilical graded submanifold (Y, B) in a superspace $((X, A), G)$ of constant supercurvature k is also of constant supercurvature. A characterization theorem for a totally umbilical graded submanifold (Y, B) of dimension (s, t) in a superspace form $\mathbf{R}^{m,n}(k)$ is given.
Reference: 1) B. Kostant, Graded manifolds, graded Lie theory and prequantization, Lect. Notes in Math. no. 570, Springer-Verlag 1977.
2) Bang-Yen Chen, Geometry of submanifolds, Marcel Dekker, Inc. New York 1973.