HYPERSURFACES OF CONULLITY TWO, WHICH ARE ONE-PARAMETER SYSTEMS OF TORSES

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The class of developable ruled surfaces (or torses) is well known from the classical differential geometry. In the present paper we consider hypersurfaces, which are regular 1-parameter systems of torses - systems of torses such that the tangent space of an arbitrary torse of the system is a principle space of the second fundamental form of the hypersurface. We prove that these are exactly the hypersurfaces of conullity two, which are 1-parameter systems of torses. In this way we construct new examples of hypersurfaces of conullity two (hypersurfaces for which the nullity space of the curvature tensor has codimention two or "semi-symmetric spaces foliated by Euclidean leaves of codimention two" in the sense of Szabo). A special class of regular 1-parameter systems of torses is the class of ruled hypersurfaces. We derive formulae for the second fundamental form of a regular 1-parameter system of torses and the second fundamental form of a ruled hypersurface. Moreover we prove two characterizing theorems concerning the 1-parameter systems of torses and the ruled hypersurfaces.

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