MODELS, EQUIVALENCE AND SYMMETRIES OF UNIFORMLY LEVI DEGENERATE HYPERSURFACES I.

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Abstract: Uniformly Levi degenerate real hypersurfaces in C^n play an important role in CR-geometry and the theory of Hermitian Symmetric Domains. In this talk, I will discuss applications of the normal form approach in the study of geometry of 2-nondegenerate submanifolds in the complex n-dimensional space. I will discuss several recent results on the equivalence problem and symmetries of such manifolds, and a complete description of models for uniformly 2-nondegenerate hypersurfaces in arbitrary dimension. The talk is based on joint works with Jan Gregorovic, Ilya Kossovskiy and David Sykes. Jan Gregorovic will speak on a related topic, with the same title, ended by II.