



Institute of Mathematics and Informatics – Bulgarian Academy of Sciences

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Analysis, Geometry and Topology Department

Joint Seminar of Analysis, Geometry and Topology Department

Kähler Manifolds of Quasi-constant Holomorphic Sectional Curvature and Generalized Sasakian Space Forms

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Abstract. Two geometric notions, namely Kähler manifolds of quasi-constant holomorphic sectional curvature and generalized Sasakian space forms, are related to each other, for the first time. Some conditions under which each of these structures induces the other one, are provided here. Several results are obtained on direct products (which are special cases of Naveira’s classification), warped products or hypersurfaces of manifolds and relevant examples are included. A result of Niebergall and Ryan is generalized here. Some necessary and sufficient conditions for Einsteinian hypersurfaces are given at the end. The talk is based on a joint work with S. Guler.

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