



Geometry Webinar AmSur/AmSul

Special classes of transversely Kähler almost contact metric manifolds

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Resumo: I will discuss some special classes of almost contact metric manifolds $(M, \varphi, \xi, \eta, g)$ such that the structure (φ, g) is projectable along the 1-dimensional foliation generated by ξ , and the transverse geometry is given by a Kähler structure. I will focus on quasi-Sasakian manifolds and the new class of anti-quasi-Sasakian manifolds. In this case, the transverse geometry is given by a Kähler structure endowed with a closed 2-form of type $(2,0)$, as for instance hyperkähler structures. I will describe examples of anti-quasi-Sasakian manifolds, including compact nilmanifolds and principal circle bundles, investigate Riemannian curvature properties, and the existence of connections with torsion preserving the structure. This is a joint work with Dario Di Pinto (Bari).