

Non-Kähler manifolds via mapping tori

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Abstract. In the talk I will report some results on existence of special Hermitian structures, like balanced, CYT and SKT on mapping tori. In the first part of the talk I will show a construction via toric suspensions of hyperKähler manifolds, obtained in collaboration with Gueo Grantcharov and Misha Verbitsky. Next, I will discuss joint results with Beatrice Brienza and Gueo Grantcharov on compact complex manifolds admitting a Hermitian structure which is SKT and CYT, but not Bismut flat.