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New constructions in non-Kähler toric geometry

In this talk I plan to describe a special class of Kato manifolds in arbitrary complex dimension, whose construction arises from toric geometry. Using the toric language, I will present several of their analytic and geometric properties, including existence of special complex submanifolds and partial results on their Dolbeault cohomology. Moreover, since they are compact complex manifolds of non-Kahler type, I will investigate what special Hermitian metrics they support.