

Michael Albanese

Title: Hodge Theoretic Results for Nearly Kähler Manifolds.

Abstract: A nearly Kähler six-manifold admits a compatible $SU(3)$ -structure. Verbitsky utilised this $SU(3)$ -structure to obtain a generalisation of the Kähler identities, which he used to prove a Hodge decomposition analogous to the Kähler case. We extend these identities and the Hodge decomposition to nearly Kähler manifolds in arbitrary dimensions. This is joint work with Spiro Kari-
giannis, Lucía Martín-Merchán, and Aleksandar Milivojević.