

Non-principal T-duality

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Abstract:

This talk will built upon the previous talk by Gil Cavalcanti. T-duality is an equivalence between quantum field theories with very different behaviour. Mathematically it can be described as a symmetry between principal torus bundles, and can be used to transport geometric structures (e.g. generalized complex structures) between these torus bundles. In this talk we will extend T-duality to non-principal torus actions, giving special attention to toric manifolds. This will be done using the framework of elliptic divisors and tangent bundles, as introduced in the previous talk. This will provide interesting new examples of T-dual (stable) generalized complex structures.