"The investigation of moduli spaces of sheaves on complex manifolds and representations of finitely generated algebras has a long history. Understanding the topology of these moduli spaces is certainly the first step into a deeper analysis and many famous mathematicians contributed to this field. Donaldson-Thomas theory is a rather new approach to study moduli spaces and until recently it was not known which aspect of the moduli spaces is reflected by the so-called Donaldson-Thomas invariants. I will give a brief introduction into Donaldson-Thomas theory and I will show that in a particular class of examples Donaldson-Thomas invariants compute very important topological invariants, namely intersection Betti and Hodge numbers."