

Ian Strachan – Twistor Theory and Donaldson-Thomas Invariants

Tuesday 28 September 2021 14:00 (1 hour)

Lionel taught us how to use the Lie algebra of volume preserving diffeomorphism of a surface in Lax pairs, thus making the connection between integrable systems and curved twistor spaces. He also taught us how isomonodromy problems have a natural twistorial interpretation. In this talk it is shown how the wall-crossing phenomena in the theory of Donaldson-Thomas invariants results in a Riemann-Hilbert problem, and hence, via a (complex) hyperkahler manifold, to twistor theory. [joint work with Tom Bridgeland]