

Fakultät für Mathematik

Geometry and Topology seminar

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ALE metrics and nodal curves

Tuesday 07/11/2023, 09:45 - 11:15

ESI, Boltzmann Lecture Hall, Boltzmannngasse 9/2,1090 Wien

Kronheimer constructed asymptotically locally Euclidean metrics on the resolution of a Kleinian singularity by a hyperkähler quotient construction. This talk involves an alternative approach using the algebraic geometry of the twistor space and the circle action on the resolution. It leads to the consideration of nodal curves in a linear system on a rational surface, and from that to the differential geometry of the three-dimensional quotient of the ALE space.