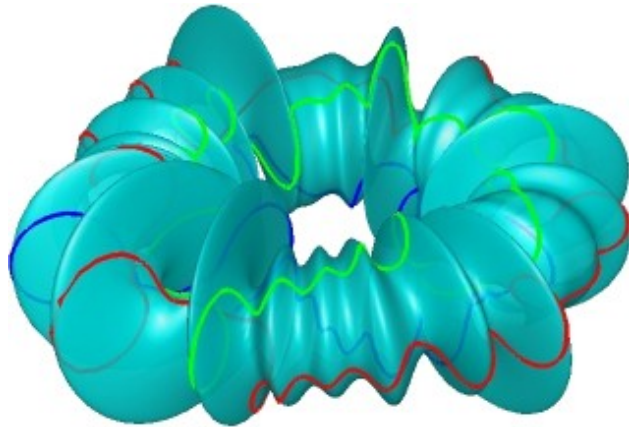


Nonlinear Riemann-Hilbert Problems - An Introduction -

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At the age of 25, Bernhard Riemann posed the question about “reasonable” boundary value problems for analytic functions. Heuristic arguments led him to the formulation of what we now call “Riemann-Hilbert problems” (RHP for short). For a rather long time research was nearly exclusively concentrated on two special types of RHPs, linear problems and conformal mapping. So it took approximately one hundred years until general results for nonlinear RHPs became available and the interplay between RHPs and other topics was discovered.



The lecture gives a brief outline of the history, presents some general results on existence and uniqueness of solutions, and sketches a few applications in mathematical physics and systems theory.