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The analysis of linear stability of the Ricci flow along a collapsing solution

TIME:
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Arnimallee 2-6, 14195 Berlin-Dahlem (Raum 031)

I will discuss the analytic aspects of recent joint work with Dan Knopf and Jim Isenberg, in which we demonstrate the linear stability of a flow equivalent to the Ricci flow along various collapsing homogeneous solutions. The linearized operator is not self-adjoint with respect to any weighted L2 function space, and has quadratically unbounded coefficients in its first and zero order terms. Estimates are obtained using the Koiso Bochner formula, and an approximation of the unbounded operator by a sequence of bounded operators.

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