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## **Singularity theorems for $C^1$ -Lorentzian metrics**

The classical singularity theorems of General Relativity show that a Lorentzian manifold with a smooth metric satisfying certain physically reasonable curvature and causality conditions cannot be causal geodesically complete. One drawback of these classical theorems is that they require smoothness of the metric while in many physical models the metric is less regular. In my talk I will present recent work concerning singularity theorems for metrics that are merely continuously differentiable – a regularity where one still has existence but not uniqueness for solutions of the geodesic equation. I will give an overview of the proof of Hawking’s theorem in this regularity and, if time permits, discuss some of the estimates involved in more detail.