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Open problems in the nature of singularities in relativistic spacetimes DEBORAH KONKOWSKI, US Naval Academy — I will discuss the status of our understanding of singularities in general relativistic spacetimes. I will cover briefly their definition, location, and existence, while focusing on their classical and quantum nature. I will emphasize what we know, and what we do not know about the effect of test particles and waves on a zoo of singularities, from quasiregular to nonscalar curvature to scalar curvature in both localized and cosmological scenarios.

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