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**Joel A. Smoller\*** ([smoller@umich.edu](mailto:smoller@umich.edu)), Mathematics Department, University of Michigan, East Hall, 525 East University, Ann Arbor, MI 48108-1109. *Linearized Stability of the Schwarzschild Black Hole.*

We prove that the Schwarzschild Black Hole is linearly stable with respect to scalar wave, Dirac, electromagnetic, and gravitational wave perturbations. The method is to show that solutions of the corresponding Teukolsky equation for general spin, decay locally in the sup norm topology. This is joint work with Felix Finster. (Received September 22, 2006)