

1031-35-111 **S. Klainerman*** (seri@math.princeton.edu), Fine Hall, Washington Road, Princeton, NJ
08544. *Carleman estimates and Uniqueness of Kerr.*

A well known result of Carter-Robinson and Hawking provides a proof of uniqueness of Kerr in the class of real analytic, stationary, solutions of the Einstein vacuum equations. The proof of the result hinges heavily on analyticity, an assumption which is not all justifiable. I will present a completely different attempt to prove the result which does not require analyticity. The program, developed in collaboration with A. Ionescu, depends on a geometric version of Carleman estimates for nonlinear wave equations. (Received August 06, 2007)