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**Jason Metcalfe\*** ([metcalfe@email.unc.edu](mailto:metcalfe@email.unc.edu)), Department of Mathematics, University of North Carolina, Chapel Hill, NC 27599-3250. *The Strauss conjecture on black hole backgrounds.*

This talk is based on joint work with H. Lindblad, C. Sogge, M. Tohaneanu, and C. Wang, and it focuses on an analog of the Strauss conjecture on black hole backgrounds. The Strauss conjecture asks for what power-type nonlinearities can semilinear wave equations be guaranteed to have global existence when the initial data are sufficiently small. In the flat case, such global existence was first resolved in generic dimension by Georgiev, Lindblad, and Sogge. Here, we resolve a similar question on Kerr black hole space-times with sufficiently small angular momenta. The main tools are an analog of a weighted Strichartz estimate developed in a joint work with Hidano, Smith, Sogge, and Zhou and localized energy estimates on these space-times, such as those proved by Tataru and Tohaneanu. (Received January 26, 2014)