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**Maurice J LeBlanc\*** (mleblanc@math.uga.edu), Department of Mathematics, University of Georgia, Boyd Graduate Research Center, Athens, GA 30602. *Building a Free Quantum Field Theory on a Curved Spacetime*. Preliminary report.

We will first present a stream-lined version of the Wightman Axioms for a free quantum field theory for particles of mass  $m$  and spin zero in a flat space-time. We will then report on our progress toward constructing quantum field theories which satisfy appropriately modified axioms on a curved space-time using Wigner contraction as well as perturbation from the case on flat space-time. (Received September 13, 2012)