

## MATHEMATICS COLLOQUIUM

Complex Form of Classical and Quantum Electrodynamics

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**Abstract:** We consider a complex covariant form of the macroscopic Maxwell equations, in a moving medium or at rest, following the original ideas of Minkowski. A compact, Lorentz invariant, derivation of the energy-momentum tensor and the corresponding differential balance equations are given. Conservation laws and quantization of the electromagnetic field will be discussed in this covariant approach elsewhere.

Date: Thursday, November 17, 2016

Time: 12:15pm-1:15pm Place: MAGC 1.302

Refreshments will be served at 12:00pm

For further information, or for special accommodations, please contact Dr. Zhijun Qiao via email at zhijun.qiao@utrgv.edu or at 956-665-3406.