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Caner Koca* (ckoca@citytech.cuny.edu), NYC College of Technology, Department of Mathematics, 300 Jay Street, Brooklyn, NY 11201. *Einstein-Maxwell Metrics on Ruled Surfaces*.

In Riemannian geometry, the Einstein-Maxwell Equations, which originate from physics, can be thought of as a geometric PDE for Riemannian metrics on oriented 4-manifolds. Einstein metrics and constant-scalar-curvature-Kähler metrics are among the (trivial) solutions of this PDE. In this talk, we will construct families of non-trivial solutions on complex higher-genera minimal ruled surfaces. These solutions are non-Kähler, but conformally Kähler. This is a joint work with Christina Tønnesen-Friedman. (Received January 26, 2018)