

1125-35-1641      **David Michael Harper\*** (dharp012@fiu.edu). *PDEs and hypercomplex differentiable functions.*

Hypercomplex numbers are unital algebras over the real numbers. We show that differentiable functions over various hypercomplex number systems can be useful in the characterization and study of generalizations of the Laplace equation. Each class of differentiable functions enjoys a rich connection with a particular partial differential equation in much the same way as the complex differentiable functions connect with the Laplace equation. (Received September 18, 2016)