

1116-53-152

**Eric O. Korman\*** ([ekorman@math.utexas.edu](mailto:ekorman@math.utexas.edu)). *Hyperholomorphic line bundles.*

We discuss a generalization of the hyperholomorphic line bundle constructed by Haydys and Hitchin that exists over hyperkähler manifolds admitting a special type of  $S^1$  action. We will provide different descriptions, including a twistorial one. Examples will be drawn from the moduli space of parabolic Higgs bundles and adjoint orbits of complex semisimple Lie groups. Applications to physics may be discussed. (Received August 07, 2015)