

1116-35-2271      **Beyza Aslan\*** ([beyza.aslan@unf.edu](mailto:beyza.aslan@unf.edu)), University of North Florida, Department of Mathematics and Statistics, 1 UNF Dr., Bldg 14/2731, Jacksonville, FL 32224. *Modeling the change in electric potential due to lightning in a sphere.*

The change in electric potential as a result of lightning in a sphere of radius 1 is evaluated. Eigenfunctions obtained by utilizing spherical Bessel functions are used to evaluate the new potential. The change in the electric potential is a constant along the lightning channel, and it is the same as the pre-flash potential outside the channel. The governing equation for the electric potential is obtained from Maxwell's equations. (Received September 22, 2015)