1106-85-2896 **Andras Balogh** (abalogh@utpa.edu), Department of Mathematics, The University of Texas-Pan American, 1201 W. University Drive, Edinburg, TX 78539, **Jacob N Banda*** (jnbanda@broncs.utpa.edu), Department of Mathematics, The University of Texas-Pan American, 1201 W. University Drive, Edinburg, TX 78539, and **Karen Yagdjian** (yagdjian@utpa.edu), Department of Mathematics, The University of Texas-Pan American, 1201 W. University Drive, Edinburg, TX 78539. *Numerical investigation of the equation for the Higgs boson in the de Sitter spacetime.*

In this talk we use various explicit numerical schemes on Graphical Processing Units (GPUs) to approximate solution of the equation for the Higgs boson in the de Sitter spacetime. Through these computer simulations we investigate the zeros of global solutions in the interior of their compact support. These so-called bubbles, their creation, growth and interactions are of great interest to particle physics and inflationary cosmology. Sufficient condition for their existence was shown by K. Yagdjian in 2012. (Received September 17, 2014)