1125-92-2549   **Richard Schugart*** (`richard.schugart@wku.edu`), **Nitin Krishna**, **Hannah Pennington**, **Ayush Prasad**, **Marisa Eisenberg** and **Canaan Coppola**. *Connecting Local and Global Sensitivities in a Mathematical Model for Wound Healing.*

A mathematical model for proteolytic enzyme interactions and their effects on the healing response of a wound will be presented. The differential-equation model was curve fit to averaged data of patients with diabetic foot ulcers. Multiple sensitivity analyses were conducted. Results from a Latin hypercube sampling combined with a partial correlation coefficient analysis will be shown and compared to a local classical sensitivity analysis leading to a local-to-global analysis of our parameter space. Extensions of this work, including work with individual patient data, will be discussed. (Received September 20, 2016)