

1083-92-232

**Mark E Whidden\*** (mwhidden@math.fsu.edu), 1017 Academic Way, Love Building, Room 208, Tallahassee, FL 32303, and **Nick G Cogan** and **Matt R Donahue**. *Numerical Computations of a Multiphase System for Biofilm Development*.

In recent years, many biological phenomena involving complex mechanical and biochemical interactions of multiple components have been successfully modeled using a multiphase framework, including tumorigenesis, biofilm channel formation, and developmental processes. In this talk, I will examine the computational issues that are inherent in the numerical simulation of a particular multiphase model for the biofilm formation that occurs in Pierce's Disease, and demonstrate some particular schemes which are both efficient and robust. (Received August 29, 2012)