

1131-35-357

Azmy S. Ackleh, X Li* (lix@uhd.edu) and **B Ma.** *Parameter Estimation in a Size-Structured Population Model with Distributed States-at-Birth.*

A least-square method is developed for estimating parameters in a size-structured population model with distributed states-at-birth from field data. First and second order finite difference schemes for approximating the nonlinear-nonlocal partial differential equation model are utilized in the least-squares problem. Convergence results for the computed parameters are established. Numerical results demonstrating the efficiency of the technique are provided. (Received July 18, 2017)