1033-62-222 **Jonathan T. Quiton*** (Jonathan.Quiton@wku.edu), Department of Mathematics, Western Kentucky University, 1906 College Heights Blvd. #11078, Bowling Green, KY 42103, and **Edsel A. Peña** (pena@stat.sc.edu), Department of Statistics, University of South Carolina, 1600 Greene St., Columbia, SC 29208. *General Outlier Detection and Goodness of Fit for Recurrent Event Data.*

A general mathematical framework for outlier detection and goodness of fit testing for recurrent event data is considered under a fully parametric specification for the baseline hazard function. Asymptotic properties of the goodness of fit tests were examined, while exact and bootstrapping methods were proposed for outlier detection test in lieu of the asymptotic result. Closed form expressions and small sample properties were obtained under the Homogeneous Poisson Process (HPP) model. Examples using an engineering and biomedical recurrent event data are given. (Received September 11, 2007)