1086-VG-59   **Edward F Aboufadel*** (`aboufade@gvsu.edu`), Dept. of Mathematics, A-2-178 MAK, Grand Valley State University, Allendale, MI 49401. *Analysis of Diabetes Data Using Wavelet Scalograms.*

Type-1 diabetes is an autoimmune disease that requires constant attention in order to keep a patient's blood glucose in an acceptable range. In recent years, type-1 diabetic patients have begun to use continuous glucose monitors (CGMs) to monitor their blood glucose. In this paper, we describe mathematical methods to create reports based on streams of CGM data, so that blood glucose management can be improved. The mathematical tools used to create the reports includes wavelets scalograms and multidimensional scaling. (Received June 25, 2012)