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**Donald C. York\*** ([dyork@uvi.edu](mailto:dyork@uvi.edu)), University of the Virgin Islands, 2 John Brewers Bay, St. Thomas, VI 00802. *A First Application of Fourier Series Using Spreadsheets.*

In this presentation, we consider the student who might wonder how one could benefit from writing a simple periodic function as a series of sine and cosine functions. An immediate application can be obtained using a spreadsheet to illustrate the solution of a boundary value problem for the wave or heat equation. The graph of a Fourier series is easily modified into an animated solution of the PDE by introducing time through a computer loop. (Received September 25, 2005)