1125-I1-2046　　　　**Gareth E Roberts*** (`groberts@holycross.edu`), 1 College Street, Worcester, MA 01610. *We Got The Beat: Using Rhythm to Teach and Motivate Mathematics.*

Rhythmic structure in music is inherently mathematical. For instance, the lengths of standard notes (whole, half, quarter, etc.) form a decreasing geometric sequence with ratio $r = 1/2$. Adding more and more dots to increase the length of a note is equivalent to constructing a geometric series. The mathematical principle underlying polyrhythmic music is the least common multiple. These and other examples will be offered as creative ways to teach and motivate mathematical study. Musical examples presented will range from rock (e.g., The National) to classical (e.g., Verdi, Ligeti). (Received September 19, 2016)