## 1163-M5-1441 Gareth E Roberts\* (groberts@holycross.edu), 1 College Street, Dept. of Mathematics and Computer Science, College of the Holy Cross, Worcester, MA 01610. Bartók, Fibonacci, and the Golden Ratio: Fact or Fiction?

In 1955, Hungarian music theorist Ernő Lendvai published research claiming the existence of the Fibonacci numbers and the golden ratio in several works of the famous Hungarian composer Béla Bartók. Lendvai's discoveries and arguments were ground-breaking, leading to a flurry of claims that Bartók and other well-known composers (e.g., Debussy) were consciously incorporating sacred mathematical proportions into their music. Unfortunately, Lendvai made some crucial errors in his analysis, cherry-picked favorable data, and made some questionable assumptions. Following the excellent analysis of Roy Howat, we will discuss the evidence for and against the purported use of the Fibonacci numbers and golden mean in Bartók's music, focusing our attention on his ethereal *Music for Strings, Percussion and Celesta*. (Received September 15, 2020)