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Rachel Wells Hall* (rhall@sju.edu), Department of Mathematics, Saint Joseph's University, Philadelphia, 19131. *Eine Kleine Mathmusik: Six Mathematical Compositions for Bridges Pécs 2010.*

In this talk, I consider six mathematically inspired musical compositions written for the 2010 Bridges Conference in Pécs, Hungary. Adrian Childs' *campanologicalplainbobmobile*, for bell choir, explores the connection between permutation groups and the ancient English art of change ringing. Ferdando Benadon's *Clave Sin* for jazz quartet employs similar rhythmic patterns played in different time signatures, creating tension between rhythms that are almost, but not quite, the same. Clifton Callender's *Hungarian Jazz*, for jazz quartet, uses a "Risset rhythm" to create the effect of continuous acceleration—a musical equivalent of Escher's *Print Gallery*. By embedding the first 768 digits of π in his three *Steganographic Etudes*, Noam Elkies demonstrates the limits of musical coherence. Giovanni Albini's *Two Studies* exhibit two types of symmetry: abstract, harmonic symmetry and the physical symmetry of hands on the piano. Finally, Dmitri Tymoczko's *Cyberpunk Study no. 1: Waltzing with Wolfgang while Conlon Looks On*, inspired by a large statistical study of harmony in Mozart, combines algorithmic composition with a more improvisational, organic approach. I will discuss the math explored by each composer and play short recordings. (Received September 22, 2010)