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**William T Ross\*** ([wross@richmond.edu](mailto:wross@richmond.edu)), Department of Mathematics and Computer Science,  
University of Richmond, Richmond, VA 23173. *Pythagoras Lives!*

Pythagoras of Samos (c. 570–495 BCE) was a mathematician, philosopher, and teacher whose influence is still being felt millennia after he lived. He is known to all school children by this Pythagorean theorem which, in modern notation, gives us a notion of orthogonality and parallelogram laws in Hilbert spaces. In this joint work with Raymond Cheng and Javad Mashreghi, we explore some notions of weak parallelogram laws and how far certain Banach spaces deviate from Hilbert spaces. This talk also explores a more general notion of orthogonality that has applications to problems in complex analysis and prediction theory. (Received August 31, 2017)