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**Maria Zack\*** (mzack@pointloma.edu), Mathematical, Information & Computer Sciences, 3900 Lomaland Drive, San Diego, CA 92106. *Early Computations on the Cycloid - Some Interesting Puzzles.*

Many well-known mathematicians of the seventeenth and eighteenth centuries studied the cycloid. These include Galileo, Roberval, Descartes, Pascal, Wallis, Huygens, Fermat, Newton and Leibniz and more than one Bernoulli. This talk will consider the quadrature computations of Galileo's student Evangelista Torricelli. The computations were completed sometime before April 1643 when Cavalieri sent a letter to Torricelli congratulating him on the findings. Torricelli's results were published in an appendix in his *Opera Geometrica* (1644). Some of the computations are relatively easy to follow, but one of them provides an interesting puzzle. (Received September 06, 2020)