

1116-VG-2011      **Johannes C. Familton\*** (jfamilton@bmcc.cuny.edu). *Olinde Rodrigues: banker, activist and mathematician*. Preliminary report.

Benjamin Olinde Rodrigues (1795–1851), was born into a family of Iberian Jews residing in France. His interesting life as an activist and banker was superseded by his life as a mathematician. He made three mathematical discoveries that preceded those who were initially given credit for them. For his PhD. Thesis in 1815 he wrote on what would later be connected with Legendre polynomials and is known today as Rodrigues' formula. In 1840 he wrote a paper using Euler's Four Square formula to represent rotations in space, this was a precursor to Hamilton's quaternions. Also in this paper Rodrigues provided an algorithm to compute the exponential map on the Lie algebra  $SO(3)$ . In this talk Dr. Familton will discuss this fascinating man's life and his mathematical contributions. (Received September 22, 2015)