

1135-01-1715      **Abdullah M. Abu-Rqayiq\*** (rqayiq83@nmsu.edu), 1423 Sweet Ave., Zip 88001, Las Cruces, NM 88001. *On An Arabic Mathematical Manuscript From Early 19th Century.*

In the Middle Ages, Arabic scholars provided a significant contribution to many fields of knowledge such as astronomy, mathematics, philosophy, chemistry, etc. For example, Algebra was Originally developed in a few Arabic treatises written in the 9th century. In this talk, I will present one of the very rare mathematical manuscripts written in the early 19 th century in Egypt. Written in 1824 by the Egyptian instructor, Ahmad At-Tabbakh, *Al-Bahja Assaneya Fi Mabda' Al-Oloum Arryadeya* (translated as *Fundamentals of Mathematical Sciences*) is evidence of the scientific interaction between Egypt and European countries at that time. At-Tabbakh translated an Italian mathematical book that existed in the library of the school that he attended. This 145-page manuscript is a translation of an Italian text of an unknown author. While many studies examined Arabic mathematical texts, hardly any researchers explored mathematical texts of this era. My research tries to correct this imbalance by studying this manuscript and bringing it to light. In my talk, I will provide a historical background, analyze the content and explain how this manuscript shows a scientific cross-cultural interaction between the Arabic and western civilizations in the early 19th century. (Received September 24, 2017)