Rebecca Garcia*, Department of Mathematics and Statistics, Box 2206, Huntsville, TX 77341-2206. Benjamin Franklin's Magic. Preliminary report.
In several letters written in the mid-1700s, Benjamin Franklin produced his version of magic squares and what he called his "magical circle of circles." A magic circle is an arrangement of numbers in a circular grid with annuli and radii adding to a common number. In this talk, we will revisit Benjamin Franklin's magic circle of order 8 and answer various questions on their construction and enumeration using modern techniques in algebra. Then, we will discuss a method to construct the only known Franklin magic circle of order 16. (Received September 22, 2011)

