1067-01-941 **Robert E. Bradley*** (bradley@adelphi.edu), Adelphi University - Dept. of Mathematics, 1 South Ave., Garden City, NY 11530. *The Binomial Theorem from Newton to Cauchy.*

Newton discovered the General Binomial Theorem in the 1660s. Although he could demonstrate that it was true in many special cases, he did not initially have a general proof. Taylor's theorem provides a general proof that is within the grasp of a modern undergraduate, but an elementary proof (one not requiring the differential calculus) was considered desirable. Such a proof was finally given by Euler in 1775. It became widely known in a somewhat more polished form thanks to Cauchy's *Cours d'analyse* (1821).

We investigate the historical reasons for preferring elementary proofs over calculus-based ones and present the details of the Euler-Cauchy proof. (Received September 16, 2010)