

1163-A0-1696 **Daniel E. Otero***. *Jakob Bernoulli's Treatise on Infinite Series*.

Beginning in 1689, Jakob Bernoulli (1655 – 1705), second member of the great mathematical Bernoulli clan, published a series of papers on summation of infinite series which were later collected into a single treatise published posthumously as an appendix to his more-famous seminal work on probability, *Ars Conjectandi* (1713). In this treatise on series, Bernoulli attempted to provide a Euclidean-style foundation for working with these quantities, an early systematic treatment of what would later produce the contemporary idea of convergence. Bernoulli also developed new methods for computing certain classes of series having rational sums, he investigated infinite nested radical expressions, and employed some of the (very) new methods of Leibniz's calculus of differentials to make advances in the then-burgeoning study of geometric curves. This talk will summarize Bernoulli's work in this treatise, in the form of a new complete English translation. (Received October 22, 2020)