

1009-01-194 **Robert E. Bradley*** (bradley@adelphi.edu), Adelphi University, Department of Mathematics
& Computer Science, Garden City, NY 11530. *Euler's Application of the Partition Function.*

Leonhard Euler invented the notion of a generating function. He first used it to answer a question by Naudé concerning partitions of natural numbers. This partition function was a fertile line of research, to which Euler returned repeatedly over the course of his career. This talk will survey Euler's papers on partitions, including a surprising application to the Berlin Lottery. (Received August 16, 2005)