962-Q1-356 **Lawrence A D'Antonio*** (`ldant@ramapo.edu`), Mathematics Department, 505 Ramapo Valley Rd., Mahwah, NJ 07430. *Euler and the Concept of Convergence.*

This talk considers Euler's views on the convergence of infinite series as presented in the 1740 paper on the divergence of the harmonic series and the 1760 paper on divergent series. The eighteenth century is often looked upon as a time of confusion and uncertainty with regard to the foundations of calculus. In particular, there is a tendency to accuse Euler of having a defective notion of convergence. The thesis presented here is that,in fact, Euler has a very clear definition of the convergence and sum of an infinite series. Euler's discussion, while quite different from the familiar notions of convergence introduced by Cauchy, is well thought-out and represents a step forward in the formalization of calculus. (Received September 12, 2000)