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Ghosts of Departed Errors: Berkeley's Mathematical Objections to the Calculus of Newton and Leibniz.

In 1734 George Berkeley, Bishop of Cloyne, published *The Analyst* wherein he took issue with the foundations of calculus as they were then understood. This is arguably one of the most important documents in mathematics as the next 200 years of foundational work can be viewed as the mathematics community's attempt to respond to Berkeley's criticism. Unfortunately, only his famous sarcasm, referring to differentials as the "ghosts of departed quantities," is well known today. I will present and examine the mathematical criticisms offered in *The Analyst* and some of the early attempts at answering them. (Received September 16, 2008)