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**Robert E. Bradley\*** (bradley@adelphi.edu), Adelphi University, Department of Mathematics & Computer Science, 1 South Ave., Garden City, NY 11530. *Cramer's Paradox from Euler to Bézout.*

In 1747, Leonhard Euler considered “an apparent contradiction in the doctrine of curved lines” in a paper delivered to the Berlin Academy. At issue were two questions which he had already considered in his *Introductio in analysin infinitorum*, which was in press at the time: how many points are required to determine an algebraic equation, and in how many points two algebraic curves may intersect.

The apparent contradiction to which Euler referred came to be known as Cramer's Paradox, although Cramer's treatment of the problem in his 1750 *Introduction à l'analyse des lignes courbes algébriques* is perhaps less satisfying than Euler's explanation. However, both accounts are missing a crucial element: a complete proof of what is now known as Bézout's theorem.

In this talk, we will consider Euler's resolution of Cramer's Paradox and his attempts to prove Bézout's theorem, along with an examination of Bézout's own proof. (Received September 20, 2006)