

1086-F5-1394      **George W. Heine\*** (gheine@mathmaps.com). *Euler and the Figure of the Earth.*

The debate between followers of Newton and Cassini in the early 1700s, about whether the earth is a spheroid flattened at the poles (oblate) or flattened at the equator (prolate), forms one of the more colorful chapters in the history of mathematics. The French Academy sent measuring teams to the “ends of the earth”—Lapland and Ecuador—and their results seemed to resolve the controversy, although doubt still lingered.

Leonhard Euler, in a 1754 presentation to the Berlin Academy (E215, *Elémens de la Trigonométrie Sphéroïdique, Tirés de la Méthode des Plus Grands et Plus Petits*), summarized current results and set forth his own estimates of the shape of the spheroid. We review the context of Euler’s work, and analyze his methods and conclusions in the light of contemporary theory. (Received September 21, 2012)