Bernoulli, Johann I; Bernoulli, Nicolaus II

This utmost interesting volume consists of seventeen mathematical works written by Johann Bernoulli between 1680 and 1732, one paper written by him and S. Klingenstjerna, and seven short papers or excerpts from letters by E. W. von Tschirnhaus (1), J. Craig (3), J. Hermann (1), and G. W. Leibniz (2). A very valuable general introduction of 70 pages by E. Giusti and C. S. Roero gives a survey of the content of the book. It deals with six issues: 1. The so-called “120 propositions” (248 pages) elaborated between 1680 and 1719 that can be compared with Jacob Bernoulli’s “Meditations”; 2. The problem of Philippe de La Hire regarding the construction of an ellipse subject to certain conditions, 3. The rectification of curves, 4. The problem challenge of 1703 and the controversy with Craig, 5. Geodesics, 6. Spherical epicycloids. There is a name index, lists of letters quoted in this volume of Johann Bernoulli’s works, of Nicolaus Bernoulli’s works, and a synoptic table of Johann Bernoulli’s “120 propositions”, Jacob Bernoulli’s “Meditations”, and their other works.

Reviewer: Eberhard Knobloch (Berlin)

MSC:
01A75 Collected or selected works; reprints or translations of classics
01A45 History of mathematics in the 17th century
01A50 History of mathematics in the 18th century

Keywords:
infinitesimal geometry; rectification; epicycloids; ellipses

Biographic references:
Bernoulli, Johann I; Bernoulli, Nicolaus II