Recent Mathematical Stamps: 2002

Niels Henrik Abel (1802–1829)

Abel's greatest achievement was to prove that the general quintic equation has no solutions by means of radicals. During travels to Germany and France he obtained fundamental results on elliptic functions, the convergence of series, and 'Abelian integrals', many of which appeared in his 1826 'Paris Memoir'. Tragically, this memoir was lost for a time, and letters informing him that it had been found and offering him a prestigious job in Berlin arrived just two days after his early death from tuberculosis at the age of 26.

János Bolyai (1802–1860)

constructed a 'non-Euclidean geometry'—a geometry that satisfies four of Euclid's five basic postulates, but not the 'parallel postulate' that there is exactly one line through a given point and parallel to a given line; in Bolyai's geometry there are infinitely many such lines. For almost 2,000 years it was generally believed that no such geometry can exist, yet the magnitude of Bolyai's achievement was not fully recognised until after his death.

Niels Henrik Abel
(Norway)

János Bolyai
(Hungary)

Jovan Karamata (1902–1967)

was a Serbian mathematician who spent most of his career in Belgrade and Geneva. His output was large and his main contributions were to topics in mathematical analysis. In particular, several results are named after him, such as the *Karamata Tauberian theorems* and the *Karamata inequality* for convex functions.

Mechanical calculator

This cylindrical calculating machine was constructed around 1820 by Johann Christoph Schuster (1759–1823) of Ansbach in Bavaria. Schuster built several mechanical calculators based on designs by the inventor and priest Philipp Matthäus Hahn, with whom he served his apprenticeship. This machine is still in good working order and is now housed in the Arithmeum at the University of Bonn.

Pedro Nunes (1502–1594)

a royal cosmographer, was the leading Portuguese nautical scientist of his day. He applied mathematical techniques to cartography and constructed a 'nonius' that measured fractions of a degree. His 1537 treatise on the sphere showed how to represent a rhumb line, the path of a ship on a fixed bearing, as a straight line.

Matteo Ricci (1552–1610)

was an Italian Jesuit. The first missionary in China, towards the end of the Ming dynasty, he disseminated knowledge of Western science, especially in mathematics, astronomy and geography. His most important contribution was an oral Chinese translation of the first six books of Euclid's *Elements*.

Jovan Karamata
(Yugoslavia)

Mechanical calculator
(Germany)

Pedro Nunes
(Portugal)

Matteo Ricci (Italy)

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