Swiss Mathematics

Gerhard Müller

Jakob Bernoulli (1655–1705)

was born in Basel (Switzerland) and became professor of mathematics there in 1687. He investigated infinite series, the cycloid, transcendental curves, the logarithmic spiral and the catenary, and introduced the term *integral*. His *Ars conjectandi* (1713), containing the law of large numbers, was an important contribution to probability theory.

Leonhard Euler (1707–1783)

was also born in Basel. He studied mathematics there under Johann Bernoulli and then went to the St Petersburg Academy of Sciences as professor of physics (1731) and of mathematics (1733). In 1741 he moved to Berlin as director of mathematics and physics in the Berlin Academy, but returned to St. Petersburg in 1766. He was a giant figure in eighteenth century mathematics, publishing over 800 books and papers on every aspect of pure and applied mathematics, physics and astronomy. His notations such as *e* and *i* have been used ever since. He had a prodigious memory that enabled him to continue mathematical work and to complex calculations in his head, even after losing his sight. He never returned to Basel.

Albert Einstein (1879–1955)

was born into a Jewish family at Ulm, Germany. He was educated at Munich and Aarau, graduating in physics and mathematics from the Federal Polytechnic University (ETHZ) in Zürich in 1900. He became a Swiss citizen in 1905, the year of his paper on special relativity, and was appointed examiner at the Swiss Patent office (1902–1909) in Bern. Professor in Prague in 1911 and in Zürich in 1912, he then worked in Berlin as director of the Kaiser Wilhelm Physical Institute (1914–1933). In 1921 he was awarded the Nobel Prize for Physics. He left Germany, and from 1934 lectured at Princeton, took US citizenship, and became a professor at the Institute for Advanced Study in 1940.

Max Bill (1908–1994)

Swiss politician, artist and teacher, was born in Winterthur, Switzerland. He trained at the Zürich School of Arts and Crafts (1924–1927) and the Bauhaus in Dessau (1927–1929). He developed the essential Bauhaus principles of cooperative design along purely functional lines. He built the Möbius strip monument *Continuity*.

Wolf Barth (b. 1926)

is an artist who uses mathematical designs in his work. This design, from a series on abstract art, shows a square standing on one of its corners slightly askew in a square frame.

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Leonhard Euler

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Max Bill's *Continuity*

Wolf Barth