



Abel Prize Laureate 2012 Endre Szemerédi

Hungarian mathematics

Endre Szemerédi is one of many prominent Hungarian mathematicians. Compared to its relatively small population (approx. 10 millions), Hungary has raised an impressive number of bright mathematicians. Their contributions to our common mathematical knowledge are significant.

When presenting a list of some influential Hungarian mathematicians chronologically, a good starting point is **János Bolyai** (1802-1860). The great mathematician Gauss wrote about Bolyai that *this young geometer is a genius of the first order*. Bolyai was a master in many fields, including languages, music and mathematics. His most important contribution to mathematics is the development of *non-euclidian geometry*, which finally solved the long-standing problem concerning the independence of Euclid's parallel postulate.

János Neumann (1903-1957), or **John von Neumann** is maybe the most influential of all Hungarian mathematicians. His work ranges across numerous fields of mathematics, as well as economy, physics and computer science. Von Neumann had a very fast-working brain and photographic memory. Israel Halperin said about von Neumann; *Keeping up with him was... impossible. The feeling was you were on a tricycle chasing a racing car.*

Paul Erdős (1913-1996) was a rather eccentric mathematician, working in many fields of mathematics, in particular combinatorics, graph theory and number theory. Erdős published around 1500 papers throughout his career, more than any other mathematician in history, working directly with as many as 511 collaborators.

Erdős spent most of his life as a vagabond, traveling between scientific conferences and the homes of colleagues all over the world. He would typically show up at a colleague's doorstep and announce; *my brain is open*, staying long enough to

collaborate on a few papers before moving on a few days later.

In 2005 **Péter D. Lax** (1926-) was awarded the third Abel Prize, *for his groundbreaking contributions to the theory and application of partial differential equations and to the computation of their solutions*. Lax has made important contributions to various fields of pure and applied mathematics, including integrable systems, fluid dynamics and hyperbolic conservation laws.

The youngest Hungarian mathematician we put on this celebrity list is **László Lovász** (1948-). Lovász is best known for his work in combinatorics, for which he was awarded the Wolf Prize and the Knuth Prize in 1999, and the Kyoto Prize in 2010. He served as president of the International Mathematical Union 2007-2010.

This list includes only some of the Hungarian mathematicians that deserve to be mentioned here. Names like **Haar**, **Riesz**, **Turán**, **Bott** and **Kollar** are also very well known in the mathematical community, and have made significant contributions.

