

Andrew T. Ogielski Biography

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Andrew T. Ogielski, son of Waclaw Ogielski, an orthopedic surgeon, and Janina Ogielska, a classical music aficionada, was born in Poland on February 24, 1948. His extended family, which included professors, doctors, engineers and teachers, placed high value on education and intellectual skills.

Ogielski studied physics at the University of Wrocław, Poland, graduating with a MSc (1972) for a thesis entitled "*Nonlinear Realizations of Lie Groups in Quantum Mechanics*", and subsequently obtained a PhD in theoretical physics (1976) for a thesis entitled "*Scale Transformations for Renormalized Field Operators*" under the supervision of Prof. Jerzy Lukierski. In 1976, he joined the Institute of Theoretical Physics at the University of Wrocław as a research scientist. He was then a visiting scientist at ICTP Trieste (1976), Université de Dijon (1976), SUNY Stony Brook (1978-1979) and Brookhaven National Laboratory (1980). After leaving Wrocław he was a Research Professor at Universität Kaiserslautern (1980-1981), and in 1982 he was recruited by the Theoretical Physics Research Department at Bell Laboratories in Murray Hill, where he remained until 1987, as a Member of Technical Staff. In 1987, he transferred to the Mathematical Sciences Research Center of Bell Laboratories, and in 1989 he joined Applied Research at Bell Communications Research. There he worked in supercomputing and networking research, and served in various management positions until 1996. From 1996 to 1999, Ogielski was a Research Professor at the Wireless Information Network Laboratory (WINLAB) at Rutgers University. In 2000 he co-founded a global Internet monitoring company Renesys, where he remained as President and Chief Scientist until its 2014 merger with Dyn, an Internet performance management company. (Dyn was subsequently acquired by Oracle.)

Ogielski's research was initially in mathematical physics and quantum field theory, but he took an interest in computational physics after joining Bell Labs. He then notably designed and built a special purpose supercomputer for simulating various disordered Ising models, in particular three-dimensional Ising spin glasses. He obtained landmark results in simulations of critical behavior of spin glasses and related materials for system sizes and timescales markedly larger than previously possible, resolving a number of outstanding open questions. After leaving physics, his research—and later business—interests remained centered on large scale computing and big data analytics, primarily in applications to analysis of the global Internet data and wireless networks.