

Olivier Gilbert

Kyle Smith

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## Erwin Schrodinger (Nobel Prize Winner of 1933)

Erwin Schrödinger won the Nobel Prize for Physics in 1933, for his 1926 introduction of Schrödinger's wave, the mathematical equation of wave mechanics that is still the most widely used piece of mathematics in modern quantum theory. "It posits a non-relativistic wave equation that governs how electrons behave within the hydrogen atom." (nndb.com). He worked on analytical mechanics, applications of partial differential equations to dynamics, atomic spectroscopy, color theory, cosmology, counter (or detector) statistics, eigenvalue problems, electromagnetic theory, general relativity, James Clerk Maxwell's equations, meson physics, optics, radiation theory, solid-state physics, statistical mechanics, thermodynamics, and the unified field theory. He also wrote extensively on the history of science, and existential questions of life.

Erwin Rudolf Josef Alexander Schrodinger was born August 12, 1887 in Vienna, Austria to Rudolf Schrodinger and Georgine Emilia Brenda, both whom possessed science-related backgrounds. He was their only child. His mother was half Austrian and half English. Despite his father being catholic and his mother being Lutheran, Schrodinger later became an atheist. Schrodinger learned English outside of school from his maternal grandmother who was British. Between 1906 and 1910, he studied in Vienna under Franz Serafin Exner (1849-1926) and Friedrich Hasenohrl (1874-1915). He also conducted experimental work with Karl Wilhelm Friedrich "Fritz" Kohlrausch. In 1911, Schrodinger became an assistant to Exner. At an early

age, Schrodinger was strongly influenced by a man named Arthur Schopenhauer, which as a result, he became deeply interested throughout his life in color theory and philosophy. In his lecture “Mind and Matter”, he stated that “the world extended in space and time is but our representation.” This is a repetition of the first words of Schopenhauer’s work.

In 1914, Erwin Schrodinger achieved Habilitation, which is the highest academic qualification a scholar can achieve by his or her own pursuit in several European and Asian countries. Between 1914 and 1918, he participated in war work as a commissioned officer in the Austrian fortress artillery. In 1920, he attained the position of ao. Prof. (Ausserordentlicher Professor) in Stuttgart, which is roughly equivalent to a Reader (UK) or an associate professor (US). In 1921, he became an o. Prof. (Ordentlicher Professor i.e. full professor) in Breslau, or what is now Wroclaw, Poland. It was during this time that he moved to the University of Zurich. In 1927, he succeeded Max Planck at the Friedrich Wilhelm University in Berlin. However, in 1933, Schrodinger decided to leave Germany for the reason that he disliked Nazis’ anti-Semitism. He became a Fellow of Magdalen College at the University of Oxford. Soon after he arrived, he received the Nobel Prize along with the likes of Paul Dirac. His position at Oxford did not work out because his unconventional personal life (he lived with two women) was not accepted amongst the people around him. Therefore in 1934, Schrodinger lectured at Princeton University and he was offered a permanent position there, however he did not accept it. Again, his wish to set up a house with his wife and his mistress may have posed a problem. He had the prospect of a position at the University of Edinburgh, but visa delays occurred, and in the end, he took up a position at the University of Graz in Austria in 1936. Despite all these tenure issues, in 1935, after extensive correspondence with none other than Albert Einstein, he proposed what is now referred to as the Schrodinger’s Cat thought experiment.

In 1940, he received a personal invitation from Ireland's "Taoiseach", Eamon de Valera, to reside in Ireland and to help establish an Institute for Advanced Studies in Dublin. He moved to Clontarf, Dublin and became the Director of the School for Theoretical Physics and remained there for 17 years. He became a naturalized Irish citizen in 1948, but retained his Austrian citizenship. He wrote around 50 further publications on various topics, including his explorations of unified field theory. In 1956, Schrodinger returned to Vienna. On January 4, 1961, Erwin Schrodinger past away as a result of tuberculosis.

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