Erwin Schrödinger (1887-1961) is one of the central figures of the profound physical and philosophical revolution, which was the advent of quantum physics (or quantum mechanics) in the 1920s and 1930s. Prominent among his many contributions is undoubtedly the equation that governs the time evolution of the state of a quantum system, an equation that bears his name and won him the Nobel Prize in Physics in 1933. In addition to being a great scientist, Schrödinger was also a philosopher and a mystic. In his youth influenced by Schopenhauer, through him he encountered the thought of the Upanisads and the nondual view of the Advaita Vedānta, which recognizes a fundamental unity of consciousness beyond the illusory multiplicity of subjects.

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THE SPIRIT OF SCIENCE

Edited by Augusto Shantena Sabbadini

SCIENCE THE SPIRIT OF

ARAGNO * ERANOS ASCONA



Erwin Schrödinger



ARAGNO * ERANOS ASCONA

In the lecture given at Eranos in August 1946, The Spirit of Science, Erwin Schrödinger gives a broad overview of what he considers to be "the leading ideas of modern natural science." These are Darwinism and thermodynamics in the nineteenth century, and genetics, quantum physics, and relativistic field theory in the twentieth. Associated with these conceptual revolutions are some fundamental problems: the problem of time, the cosmological problem, and the problem of the physical origins of life and thought. Schrödinger explores the elements that unite these profound transformations of thought in seemingly disparate fields, and then moves in the second part of the presentation to deal with the problems they raise. He delves with particular depth into the problem of time, which will be taken up at two important Eranos Conferences, in 1951 and 1978. The key issues discussed are the implications of the theory of relativity, in which the temporal ordering of phenomena depends on the observer, and the great challenge of understanding the irreversibility of macroscopic processes in terms of the equations of motion, both classical and quantum, which are symmetric with respect to the reversal of the direction of time. The conclusion Schrödinger draws from this examination is that "time no longer appears to us as a gigantic, world-dominating Kronos, nor as a primitive entity, but as something derived from phenomena themselves. It is a figment of my thinking."