

# Historical foundations of tomorrow's progress

J. Mehra, H. Rechenberg

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Werner Heisenberg (1901 – 1976) ranks as one of the most outstanding scientists of our century. In July, 1925, he wrote a paper which initiated the quantum mechanical theory; he also contributed the basic equations for its interpretation, the so-called uncertainty relations in the spring of 1927, and established important applications and extensions of the theory to describe the properties of atoms, molecules, solids, atomic nuclei and elementary particles. In addition, he succeeded in finding a solution to one of the most difficult problems in classical physics: the origin of turbulence. A pioneer in modern physics and its interpretation, he became its principal defender against political-ideological attacks in 1930s Germany, and following World War II a most effective figure in both the reestablishment of German science as well as in the promotion of renewed international scientific collaboration in Europe and the rest of the world.

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