



MATILDA

EFFECT



Pionierinnen der Forschung Female Pioneers of Research

Pt. 65

Grete Hermann



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Grete Hermann (1901-1984)

Mathematician, physicist,
philosopher & educator

From an early age, she was encouraged by her parents to dedicate attention and time to her education, despite the patriarchal society in which she lived.

Thus, she studied mathematics, physics, and philosophy at the *University of Göttingen*.



Her dissertation, “The Question of the Finite Number of Steps in the Theory of Polynomial Ideals,” was groundbreaking: For polynomials in several variables, one can always proceed with a finite number of steps — a foundational contribution to computer algebra.



Subsequently, she focused primarily on the intersection of mathematics and philosophy, and published her groundbreaking work, “The Philosophical Foundations of Quantum Mechanics.”



As a Jew and committed socialist, she was forced to flee Germany in 1933—first to Paris, then to England. There, she worked as a teacher and continued her activism, particularly advocating for education and democracy as pillars of postwar reconstruction.

Closely tied to her ethical convictions, she delivered lectures on ethics, logic, and social policy and translated relevant works.

Despite the prevailing social and political circumstances, she continued to publish—among other topics, on the significance of freedom and responsibility in education.



In 1950, she returned to Germany and continued her pedagogical and philosophical work. Only in the 1980s were her works rediscovered—particularly her contributions to quantum mechanics and logic.

Today, she is regarded as a pioneer of interdisciplinary mathematics, philosophy, and ethics.

Among other honors, the *German Trade Union for Education and Research (GEW)* renamed its foundation after her in 2025 to recognize and celebrate her legacy.





„Die Tatsache, dass eine Frau mathematisch denken kann, ist kein Wunder – sondern eine Selbstverständlichkeit, die nur von der Gesellschaft verleugnet wird.“

„The fact that a woman can think mathematically is not a miracle – but a self-evident truth, which society alone denies.“

