

Problems in the Epistemology of Quantum Physics

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Abstract

This paper aims at clarifying the mechanism of using symmetry in building scientific laws since the early scientific beginning of the physical thinking.

The paper shows that beauty is no more than consistency of the equation with what is required, and structure with everything symmetrical and beautiful.

The symmetry sought, physics-wise, becomes super symmetry in quantum physics and super strings theory. Breaking this symmetry will either be a case of symmetry or a case of abnormality that ends up in nothing but symmetry itself.

The paper stresses that the concept of "symmetry" is just an attempt of the human mind to impart its tools on nature. It is likely to almost be an intuition or an intuitive handling of logic. This raised some philosophical questions on the type of reality and the conformity of law to existence.

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For the paper in Arabic see pages (353-377).