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Alain Aspect awarded the 2010 Wolf Prize in Physics

The 2010 Wolf Prize in Physics was jointly awarded to Alain Aspect, CNRS senior researcher (Laboratoire Charles Fabry de l'Institut d'optique – Institut d'optique/CNRS/Université Paris-Sud 11), John F. Clauser (USA) and Anton Zeilinger (Austria) for their work in quantum physics. The Wolf Prize rewards exceptional artists and scientists, and is considered to be one of the most prestigious scientific prizes.

The Wolf Foundation awarded its 2010 prize to Alain Aspect (France), John F. Clauser (USA) and Anton Zeilinger (Austria) for their theoretical and experimental contributions to quantum physics. Their research laid the groundwork for modern quantum information technology, an area of intense research activity around the world. The award ceremony will be held at the Knesset on May 13th 2010, with Israeli President Shimon Peres presiding.

Professor Aspect, CNRS senior researcher, professor at the Institut d'optique and at Ecole Polytechnique, leads the Atomic Optics Group at the Laboratoire Charles Fabry de l'Institut d'optique at Palaiseau (Institut d'optique/CNRS/Université Paris-Sud 11).

Of Professor Aspect's many contributions to the fields of quantum optics and atom optics, the Wolf Prize recognizes the fundamental experiments carried out by his team at the Institut d'Optique in 1982. They confirmed the revolutionary nature of quantum entanglement, which Einstein had guessed at and whose experimental demonstration had been made possible by the theoretical work of John Bell. The results paved the way for research into quantum information and the development of technologies such as quantum cryptography and quantum calculation.

Throughout his career, Professor Aspect has been interested in situations in which predictions based on quantum mechanics are far-removed from everyday intuition. His groundbreaking studies include the development, with Philippe Grangier, of the first source of single photons in 1985, his work on laser cooling of atoms carried out with Claude Cohen-Tannoudji at the Ecole Normale Supérieure de Paris from 1985 to 1992, and the current work of his Atomic Optics Group on Bose-Einstein condensates and atom lasers.

Alain Aspect was awarded the 2005 CNRS Gold Medal. He is a member of the Academy of Sciences and the Academy of Technologies, a foreign associate of the National Academy of Sciences (USA) and of the Austrian Academy of Sciences.

Anton Zeilinger is a foreign associate of the French Academy of Sciences.



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