Connes Receives 2001 Crafoord Prize

Alain Connes

The Royal Swedish Academy of Sciences will award the 2001 Crafoord Prize in mathematics to ALAIN CONNES of the Institut des Hautes Études Scientifiques and the Collège de France, Paris, for his penetrating work on the theory of operator algebras and for having been a founder of noncommutative geometry.

Alain Connes is counted among the world's foremost mathematicians. For his work in operator algebras, Connes received the Fields Medal in 1983. Noncommutative geometry is a new field of mathematics, and Connes played a decisive role in its creation. His work has also provided powerful new methods for treating renormalization theory and the standard model of quantum and particle physics. He has demonstrated that these new mathematical tools can be used for understanding and attacking the Riemann Hypothesis.

Alain Connes was born in Draguignan, France, on April 1, 1947. He attended the École Normale Supérieure in Paris during 1966–70. Since 1979 he has held the Léon Motchane Professorship at the Institut des Hautes Études Scientifiques in Bures-sur-Yvette, outside Paris, and since 1984 he has also held a professorship in analysis and geometry at the Collège de France in Paris. He is a member of many scientific academies, including the Académie des Sciences de Paris and the National Academy of Sciences of the U.S.

The 2001 Crafoord Prize will be presented by the King of Sweden on September 26, 2001, at a ceremony at the Royal Swedish Academy of Sciences in Stockholm. The prize consists of a gold medal and US$500,000.

The Anna-Greta and Holger Crafoord Foundation was established in 1980 for promoting basic research in mathematics, astronomy, the biosciences (particularly ecology), the geosciences, and polyarthritis (joint rheumatism). Previous laureates in mathematics are Vladimir I. Arnold and Louis Nirenberg (1982), Pierre Deligne and Alexandre Grothendieck (1988) (Grothendieck declined the prize), and Simon Donaldson and Shing-Tung Yau (1994).

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