The Norwegian Academy of Science and Letters has decided to award the Abel Prize for 2003 to

Jean-Pierre Serre

Collège de France, Paris, France,

"for playing a key role in shaping the modern form of many parts of mathematics, including topology, algebraic geometry and number theory".

The first Abel Prize has been awarded to Jean-Pierre Serre, one of the great mathematicians of our time. Serre is an Emeritus Professor at the Collège de France in Paris. He has made profound contributions to the progress of mathematics for over half a century, and continues to do so.

Serre´s work is of extraordinary breadth, depth and influence. He has played a key role in shaping the modern form of many parts of mathematics, including:

- Topology, which treats the question: what remains the same in geometry even when the length is distorted?
- Algebraic geometry, which treats the question: what is the geometry of solutions of polynomial equations?
- Number theory, the study of basic properties of numbers. For example prime numbers and the solution of polynomial equations as in Fermat´s Last Theorem.

Serre developed revolutionary algebraic methods for studying topology, and in particular studied the transformations between spheres of higher dimensions. He is responsible for a spectacular clarification of the work of the Italian algebraic geometers by introducing and developing the right algebraic machinery for determing when their geometric construction worked. This powerful technique of Serre, with its new language and viewpoint, ushered in a golden age for algebraic geometry.

For the past four decades Serre´s magnificent work and vision of number theory have been instrumental in bringing that subject to its current glory. This work connects and extends in many ways the mathematical ideas introduced by Abel, in particular his proof of the impossibility of solving the 5th degree equation by radicals, and his analytic techniques for the study of polynomial equations in two variables. Serre´s research has been vital in setting the stage for many of the most celebrated recent breakthroughs, including the proof by Wiles of Fermat´s Last Theorem.

Although Serre´s effort has been directed to more conceptual mathematics, his contributions have connection to important applications. The practical issues of finding efficient error-correcting codes and of public-key cryptography, both make use of solutions of polynomial equations (specifically over finite fields) and Serre´s work has substantially deepened our understanding of this topic.

Jean-Pierre Serre was born in 1926 in Bages, France. He studied at the École Normale Supérieure and recieved his D.Sc. in 1951 from the Sorbonne in Paris. After holding a position through the Centre National de la Recherche Scientifique, he was an associate professor at the Université de Nancy. In 1956 he assumed the position of professor at the Collège de France.

Serre has been made a Commander Légion d'Honneur and High Officer Ordre National du Mérite. He has been elected to many national academies, in particular, the academies of France, Sweden, United States and the Netherlands. He was awarded the Fields Medal in 1954 (the youngest recipient ever), the Prix Gaston Julia in 1970, the Balzan Prize in 1985, the Steele Prize in 1995 and the Wolf Prize in 2000. He has been awarded honorary degrees from many universities, most recently from the University of Oslo in 2002 in connection with the Abel Bicentennial.