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SHENG-LI TAN

**Citation for the award of the 2000 ICTP Prize
in honour of Friedrich Hirzebruch
in the field of Mathematics**

The 2000 ICTP Prize in honour of Friedrich Hirzebruch in the field of Mathematics is awarded jointly to Sheng-Li Tan and T.N. Venkataramana.

Sheng-Li Tan has made highly significant contributions to Algebraic geometry and in particular to the theory of Algebraic surfaces. He has proved several outstanding conjectures of renowned experts in the field.

In his early work he constructed a series of examples of surfaces of general type with a canonical map of odd degree, thus answering questions posed by several mathematicians.

He then proved that in a family of curves of genus greater than two with at most ordinary double points, there are at least five singular curves. This confirmed a conjecture of Beauville, which was open for a number of years and interested several geometers. The methods he had developed are enlightening and have enabled him to improve the known bounds for the height of a point on a curve defined over a field of functions - an important question in arithmetic geometry. He found the best possible result here, thus confirming a conjecture of S. Lang.

He has proved a conjecture of Xiao on the topological behaviour of a singular fibre under base change.

In a recent interesting paper he relates the classical Cayley-Bacharach property with the famous Fujita Conjecture and proves the Cayley-Bacharach property for some algebraic varieties. In a joint work with E. Viehweg he has generalised these results to vector bundles and finds some interesting applications.

He has also confirmed the slope conjecture for moduli spaces of curves of genus 7, 8, 9 and 11.

Sheng-Li Tan is an accomplished mathematician whose work reveals geometrical insight and technical capacity of a high order.

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