Institute of Mathematical Research
Department of Mathematics

Geometry Seminar

Very ampleness of some fractional power of the canonical line bundle of some towers of complex ball quotients

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Abstract

To introduce a projective algebraic structure to a complex manifold, one needs to construct enough holomorphic sections for some ample line bundle. The usual methods to construct global holomorphic sections of a holomorphic line bundle are the Poincare series, and the Kodaira Embedding or Vanishing together with the Riemann-Roch Theorem. These methods require extra positivity apart from a factor of the canonical line bundle. In this talk we show that there is another approach which allows us to show the very ampleness of some fractional power, between zero and one, of the canonical line bundle on some towers of complex ball quotients and some locally Hermitian symmetric spaces.

Date: June 11, 2012 (Monday)

Time: 4:00 – 5:00pm

Place: Room 210, Run Run Shaw Bldg., HKU

All are welcome