THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

Geometry Seminar

Geometry of towers of coverings of a complex manifold

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Abstract

A tower of coverings of a manifold M is an infinite sequence of manifolds M_i in which M_i is a finite unramified normal cover of M_{i-1}, $M_1 = M$ and M_i approaches the universal covering of M as i approaches infinity. Examples are provided by quotients of Hermitian symmetric spaces, such as the upper half plane, by a sequence of congruence subgroups and coverings of a moduli space of curves. The main purpose of the talk is to explore some geometric aspects of such a tower, especially for non-compact ones, such as asymptotic properties of Bergman metrics, asymptotic growth rate of the Betti numbers and questions about very ampleness and normal generation of the canonical line bundle.

Date:	July 5, 2011 (Tuesday)
Time:	4:00 – 5:00pm
Place:	Room 210, Run Run Shaw Bldg., HKU

All are welcome