Hong Kong Geometry Colloquium
March 28, 2015 (Saturday)
Room 210, Run Run Shaw Bldg., HKU

Professor Dr. Walter Bergweiler
Christian-Albrechts-Universität zu Kiel

Hyperbolic entire functions

10:00 – 11:00am

Abstract

We first introduce the basic concepts of complex dynamics such as Fatou and Julia sets. Next we discuss the concept of hyperbolicity for entire functions. Then we consider for a certain classes of hyperbolic entire function, including e.g. functions like $f(z) = \sin(az + b)$, under which conditions the components of the Fatou set are bounded. This is joint work with Lasse Rempe-Gillen and Nuria Fagella.

11:00 – 11:20am   *Tea Break*

Dr. Yuan Yuan
Syracuse University, Syracuse, USA

The geometry of local holomorphic isometries

11:20am – 12:20pm

Abstract

The study of local holomorphic isometries and more general maps between Hermitian symmetric spaces has two motivations. One is from number theory, and the other one is rigidity/classification in the differential geometric point of view. This study was initialized by Calabi and was recently extensively studied by Mok. I will describe the developments on the extension and the rigidity for such maps and explain the relation with algebraic geometry, CR geometry and etc. There are joint works with Huang and Zhang.

This meeting is hosted by the Institute of Mathematical Research, HKU.

All are Welcome