

Speaker: Young-Jun Choi (Pusan National University)

Title:

abstract:

Speaker: Sejun Kim (POSTECH)

Title: Compact difference of composition operators

abstract: We characterize the joint Carleson measure for the difference of weighted composition operators acting on the weighted Bergman space. From Littlewood-Paley identity, the weighted composition operator on weighted Bergman space is closely related to composition operator on the classical Hardy space. In contrast to the case of weighted Bergman space, the compactness for the difference of composition operators on Hardy space is not yet characterized. As an application for the Carleson measure criterion, we show that the Moorhouse condition is equivalent to compactness of the difference of composition operator on Hardy space provided that inducing symbols are univalent.

Speaker: Seungjae Lee (POSTECH)

Title: On the Hartogs type extension theorems

abstract: Hartogs Theorem is one of the fundamental theorems of several complex variables theory that differentiates one complex variables theory from several complex variables theory.

Considering that the basic concepts of several complex variables theory such as Domain of Holomorphy and pseudoconvexity which arise in the Hartogs extension theorem, it is important to consider whether the above theorem can be established in other spaces besides the complex domain in \mathbb{C}^n .

In this talk, I will introduce a Hartogs type extension theorem which is established by Takeo Ohsawa in locally pseudoconvex domain on Kähler manifold. If time is permitted, I will introduce another kind of Hartogs type extension theorems.

Speaker: Inyoung Park (Pusan National University)

Title: Reproducing kernel estimates on the Bergman spaces with exponential weight in the unit ball

abstract: In this talk, I will introduce the diagonal estimates of the reproducing kernel of Bergman kernel with the weight $\omega_{\alpha,\beta}(z) = (1 - |z|)^\alpha e^{-\frac{\beta}{1-|z|}}$, where $\alpha \in \mathbb{R}$ and $\beta > 0$ on the unit ball \mathbb{B}_n . As an application, we obtain characterizations for the boundedness and compactness of Cesàro operator on $A_{\alpha,\beta}^2(\mathbb{B}_n)$. This work is the joint work with Professor Cho. in Pusan National university. Finally, I will give some remained problems related to our work.

Speaker: Aeryeong Seo (KIAS)

Title: Proper holomorphic maps between reducible bounded symmetric domains

abstract: In this talk, I will present proper holomorphic maps between bounded symmetric domains when the source domain is not irreducible. More precisely, we provide sufficient conditions for semi-product proper holomorphic maps to be product proper. As an application we characterize proper holomorphic maps between equidimensional bounded symmetric domains.

Speaker: Duc Viet Vu (KIAS)

Title: Periodic points of holomorphic endomorphisms

abstract: Let X be a compact Kahler manifold and f a holomorphic endomorphism of X . Studying the distribution of periodic points is of great interest from the dynamical point of view. In this talk, I present a sharp expected bound for the number of isolated periodic points of fixed period under the assumption that the action of f on the cohomology ring of X is simple. This is a joint-work with T.-C. Dinh and V.-A. Nguyen.

Speaker: Jongho Yang (Korea University)

Title: Compact difference of composition operators

author: Boo Rim Choe, Koeun Choi, Hyungwoon Koo, Jongho Yang

abstract: We characterize the joint Carleson measure for the difference of weighted composition operators acting on the weighted Bergman space. From Littlewood-Paley identity, the weighted composition operator on weighted Bergman space is closely related to composition operator on the classical Hardy space. In contrast to the case of weighted Bergman space, the compactness for the difference of composition operators on Hardy space is not yet characterized. As an application for the Carleson measure criterion, we show that the Moorhouse condition is equivalent to compactness of the difference of composition operator on Hardy space provided that inducing symbols are univalent.

Speaker: Jihun Yum (POSTECH)

Title: Relation between Diederich-Fornaess index 1 and existence of a Stein neighborhood basis

abstract: We will first see the relation between Diederich-Fornaess index 1 and existence of a Stein neighborhood basis. Also we will look at various (weakly) pseudoconvex domains whose closure do not have a Stein neighborhood basis, and see why these domains do not have a Stein neighborhood basis.