

中央研究院數學研究所

Institute of Mathematics, Academia Sinica

Taipei Postdoc Seminar

Speaker : 川節和哉 Dr. Kazuya Kawasetsu
(本所 Academia Sinica)

Title : *Uniqueness of a class of holomorphic vertex operator algebras of central charge 24*

Abstract :

A holomorphic vertex operator algebra (VOA) is a simple C_2 -cofinite rational VOA with a unique irreducible module up to the isomorphisms. An example of the holomorphic VOAs is the moonshine VOA V^h of central charge 24, whose automorphism group is the Fischer-Griess monster group and character is $j(\tau)-744$, where $j(\tau)$ is the j -function. It has been conjectured that there are exactly 71 holomorphic VOAs of central charge 24 and they are uniquely determined by their associated Lie algebras. They have recently been studied extensively and the existence of 71 holomorphic VOAs was proved by combining many studies by various researchers. Moreover, several holomorphic VOAs of central charge 24 were proved to be determined by their associated Lie algebras.

In this talk, I will explain basics of VOAs and provide a new result that a class of holomorphic VOAs of central charge 24 are determined by their associated Lie algebras.

This is a joint work with Ching Hung Lam and Xingjun Lin.

Time : 11:00 – 12:30, Wednesday, October 12, 2016

Venue : Room 638, Astro-Math. Building (NTU Campus)

Organizer : Yu-Yen Chien (NCTS), Jyun-Ao Lin (Academia Sinica)

Refreshment : 10:30

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2016.10.04