

Department of Mathematics
University of Notre Dame

LIE THEORY SEMINAR

Guest Speaker: Darlayne Addabbo
University of Notre Dame

Date: Tuesday, October 15, 2019

Time: 12:00 PM

Location: 125 Hayes-Healy Hall



Lecture Title:
Zhu algebras for vertex operator algebras

Abstract

Given a vertex operator algebra, V , there is a family of associative algebras, $A_n(V)$, $n \in \mathbb{N}$, called Zhu algebras, which can be used to study the representation theory of V . We will define these Zhu algebras, discuss techniques used in determining the structure of these algebras, and give an example clarifying the necessity of certain conditions in defining the Zhu algebras, $A_n(V)$, when $n > 0$. We will present results for the Heisenberg and Virasoro vertex operator algebras for certain n . No prior knowledge of vertex operator algebras will be assumed. (This work is joint with K. Barron.)

Darlayne Addabbo - University of Notre Dame