

Abstract

In this talk, firstly I will go over Zhu algebra and its related bimodule theory and explain how they are connected to the representation theory of vertex operator algebras. Then I will introduce bimodule theory over twisted Zhu algebras and explain how to use it to give a construction of tensor product of two twisted modules. For untwisted modules, Huang-Lepowsky and Li provides two different constructions of tensor product modules. Our approach, on one hand, is different from theirs, on the other hand, our approach deals with some important twisted cases. As an application, we give a twisted version of fusion rules theorem.