

Ising vectors in the vertex operator algebra V_L^+

Hiroki Shimakura

December 18 - 22, 2011

Department of Mathematics, Aichi University of Education

E-mail:shima@aecc.aichi-edu.ac.jp

Abstract

An Ising vector of a VOA is a weight 2 vector which generates the subVOA isomorphic to the simple Virasoro VOA of central charge $1/2$. There are two construction of Ising vectors of the VOA V_L^+ . These are related to sublattices of L isomorphic to $\sqrt{2}A_1$ and $\sqrt{2}E_8$. Lam, Sakuma and Yamauchi conjectured that these construction provide all Ising vectors of V_L^+ if L has no roots.

In this talk, we discuss the classification of Ising vectors of V_L^+ .