

# ISU ALGEBRA SEMINAR



**Date:** Thursday, November 15, 2018

**Time:** 1:00PM-1:50 PM

**Location:** STV 131

**Speaker:** Jonas Hartwig

**Department of Mathematics, Iowa State University**

**Talk Title:** Whittaker modules for vertex operator algebras

**Abstract** Whittaker modules over semisimple Lie algebras were studied by Kostant in the late 1970's. They play an important role in representation theory and algebraic geometry. More recently Whittaker modules over the Virasoro Lie algebra were defined and investigated by Ondrus-Wiesner and Guo-Lu-Zhao. In 2017, Tanabe used this as a starting point for a definition of Whittaker modules over vertex operator algebras. In this talk I will give a brief review of these topics and discuss the case of the  $-1$  orbifold of the higher rank Heisenberg vertex operator algebra. This talk is based on joint work with Nina Yu.

