Matthew Ondrus\* (mattondrus@weber.edu), Mathematics Department, Weber State University, 1702 University Circle, Ogden, UT 84408. Modules for the Virasoro algebra that are locally finite over certain subalgebras.

Whittaker modules have been well-studied in the context of complex semisimple finite-dimensional Lie algebras and more recently in several other settings including the Virasoro algebra. In the semisimple finite-dimensional case, several authors have studied a category of modules that includes both Whittaker modules and weight modules. In this talk, I will discuss ongoing work with E. Wiesner aimed at understanding an analogous category for the Virasoro algebra. I will describe some of the main results known thus far as well as how these results relate to various classical and recent results. (Received August 06, 2010)