Algebra and Number Theory Seminar

Mock modular forms and characters of Kac-Wakimoto

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Abstract: In this talk I will discuss the role of mock theta functions, which are certain peculiar q-series, as a liaison between modular forms and the representation theory of affine lie algebras. The mock theta functions in their most classical guises date back to the first part of the 20th century, however their roles within mathematics and number theory are still being discovered. Relating modular forms and representation theory is just one of the their many interesting facets. We will introduce the modular theory surrounding mock theta functions, and discuss their relationship to characters associated to affine Lie superalgebras due to Kac and Wakimoto.

Tuesday, December 6, 2011, 3:00 pm Mathematics and Science Center: E406

MATHEMATICS AND COMPUTER SCIENCE EMORY UNIVERSITY