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Speaker: Matthew Speck

Talk title: Mathieu-Zhao Subspaces of Commutative Vertex Algebras

Abstract: A vertex algebra is a vector space equipped with a non-associative operation which was developed in the 1970's as a connector between quantum field theory and group theory. A Mathieu-Zhao subspace is a generalization of an ideal formalized in 2009 by Zhao in an attempt to solve the famous Jacobian Conjecture and related problems. In this talk, we will define a Mathieu-Zhao subspace for a vertex algebra and look at useful examples for the future of this new area of study. Specifically, we will explore the "easiest" examples of commutative vertex algebras and draw connections to more familiar commutative associative algebras.