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Vertex-algebraic structure of principal subspaces of higher level $A_2^{(2)}$ -modules.

In this talk, we discuss the vertex-algebraic structure of principal subspaces for higher-level standard $A_2^{(2)}$ -modules. Adapting tools originally developed in a series of works by Calinescu, Lepowsky, and Milas, we give a presentation of these principal subspaces. We also give a set of recursions satisfied by the multigraded dimensions of these principal subspaces, and use these presentations to conjecture the multigraded dimension of these principal subspaces. This talk is based on joint work with Corina Calinescu and Michael Penn. (Received August 16, 2019)