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Associated variety for $L_1(\mathfrak{psl}_{N|N})$ and 3d A-model Higgs Branch

3d mirror symmetry is a research program concerning the equivalence of two topological twists of 3d supersymmetric QFT known as the 3d A-model and 3d B-model. In particular 3d mirror symemtry posits a duality of symplectic varieties known as the "Higgs" and "Coulomb" branches of the moduli space of vacua for the original 3d theory. In this talk, I will describe how these symplectic varieties can be accessed via vertex operator algebras (VOAs) constructed from boundary conditions for these theories. In particular, it is conjectured that the associated variety of the boundary VOA for the 3d A-model is isomorphic to the Higgs branch of the original theory. I will outline recent work of mine on proving this conjecture in the case of $U(1)$ gauge theories which involves identifying the associated variety of the $L_1(\mathfrak{psl}_{N|N})$ VOA.