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**Lyda Pamela Urresta\*** (lurresta@nd.edu). *On Generalizations of Geometric Vertex Operator Algebras and Related Structures.*

We study the underlying geometries of genus-zero two-dimensional conformal field theory and their corresponding algebraic structures. In particular, we consider generalizations of aspects of Yi-Zhi Huang's definition of a geometric vertex operator algebra that arise from relaxing the grading and meromorphicity restrictions in this notion. We further examine how such choices are tied to the underlying worldsheet geometry. (Received September 17, 2019)