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Michael R Penkava* (penkavmr@uwec.edu), Department of Mathematics, University of Wisconsin-Eau Claire, 105 Garfield Avenue, Eau Claire, WI 54702. *Constructing Moduli Spaces of Infinity Algebras.*

In a series of papers, the speaker and Alice Fialowski have been studying the structure of moduli spaces of infinity algebras, using miniversal deformations to determine how the moduli space is glued together. For moduli spaces of complex finite dimensional associative and (super) Lie algebras, the moduli spaces they have constructed have a unique stratification into projective orbifolds, which are connected by jump deformations. In this talk I will discuss some of the methods we have been using to construct these moduli spaces, and some conjectures about their structure. I will also discuss the moduli spaces of Real Lie algebras, which have a decomposition into strata which are given by orbifolds modelled on spheres, rather than projective spaces. (Received February 06, 2009)