Feigin and Odesskii's elliptic algebras

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Feigin and Odesskii introduced a family of graded algebras, which are parametrized by an elliptic curves and some other data, and claimed a number of remarkable results in their series of papers. The family contains all higher dimensional Sklyanin algebras, which have been widely studied and recognized as important examples of regular algebras in the sense of Artin and Schelter. In an ongoing joint work with Alex Chirvasitu and S. Paul Smith, we studied the entire family of the algebras of Feigin and Odesskii from different perspectives. In this talk, I will explain some of the general properties of those algebras, including the nature of the point schemes and nice algebraic properties that have been obtained by using the quantum Yang-Baxter equation.