1147-16-318   **Alexandru Chirvasitu*** (`achirvas@buffalo.edu`), 216 Mathematics Building, Buffalo, NY 14260-2900, and **Ryo Kanda** and **Paul Smith**. *Families of elliptic algebras.*

Feigin and Odesskii's generalizations of Sklyanin algebras are parametrized by an elliptic curve E, a point τ on it, and a pair of coprime integers $1 \leq k < n$. The resulting algebra $Q_{n,k}(E, \tau)$ has the same Hilbert series as the polynomial ring in n variables, so the algebras are non-commutative analogues of projective space. Furthermore, their point modules are parametrized by certain products of symmetric powers of E; these symmetric powers can then be regarded as subschemes of $\mathbb{P}^{n-1}$ that "survive the deformation".

The main results are that the algebras $Q_{n,k}$ have the expected Hilbert series and global dimension and are Koszul for all choices of parameters. They are also AS-regular for generic choices of $\tau \in E$. (Received January 18, 2019)

1