

1041-16-279

Daniel Rogalski* (drogalsk@math.ucsd.edu), UCSD department of Mathematics, 9500 Gilman Drive, Dept 0112, La Jolla, CA 92093. *Subalgebras of the Sklyanin algebra*. Preliminary report.

The Sklyanin algebra is the generic example of a 3-dimensional regular algebra; geometrically it corresponds to a non-commutative projective plane. We study some subalgebras of the 3-Veronese of the Sklyanin algebra, which behave geometrically like blowups of this plane at an arbitrary divisor of degree up to 7 on the special elliptic curve in the plane. These algebras turn out to be a complete list of maximal orders generated in degree 3 inside the Sklyanin algebra. (Received August 12, 2008)