1120-13-141   **Sandra Spiroff*** (`spiroff@olemiss.edu`), Department of Mathematics, Hume Hall 305, P.O. Box 1848, University, MS 38677-1848, and **Florian Enescu**. *On intersection algebras of polynomial rings.* Preliminary report.

For a polynomial ring R in finitely many variables over a field and principal monomial ideals I and J are, we study $\bigoplus_{r,s \in \mathbb{N}} I^r \cap J^s$, denoted by $\mathcal{B}_R(I,J)$. In particular, we investigate the Hilbert-Samuel and Hilbert-Kunz multplicities, the divisor class group, and the F-signature of $\mathcal{B}$. This continues the research begun by F. Enescu and S. Malec at Georgia State. (Received February 19, 2016)