1053-13-48   **Olivier A. Heubo-Kwegna*** (`heubo@yahoo.fr`), Department of Mathematical Sciences, Saginaw Valley State University, 7400 Bay Road, University Center, MI 48710, and **Alice Fabbri** (`afabbri@mat.uniroma3.it`), Dipartimento di Matematica, Università degli Studi Roma Tre, Largo San Leonardo Murialdo, 1, 00146 Roma, Italy. *Projective star operations and graded rings.*

We consider the polynomial ring $S := K[X_0, \ldots, X_n]$ over a field K and the rings $R_i := K[\frac{X_0}{X_i}, \ldots, \frac{X_n}{X_i}]$ for $0 \leq i \leq n$. We introduce the notion of a projective star operation on S and relate it to the classical star operations on the R_i's. We show that the projective Kronecker function ring $\mathbf{PKr}(S, \star)$ of S is the intersection of the Kronecker function rings $\mathbf{Kr}(R_i, \star_i)$, $0 \leq i \leq n$, where the $\star_i$'s are pairwise compatible e.a.b. star operations on the R_i's and $\star$ is a projective star operation on S built from the $\star_i$'s. (Received July 22, 2009)