1163-13-876   **Florian Enescu*** (`fenescu@gsu.edu`), Department of Mathematics and Statistics, 25 Park Place, 1421, ATLANTA, GA 30303, and **Yongwei Yao**. *Graded rings of rational twist in prime characteristic.* Preliminary report.

We study the generating function associated to complexity sequence of the twisted construction of an $\mathbb{N}$-graded ring. We regard this as an object reflecting the properties of the ring and its grading and perform a detailed analysis of the case of the polynomial ring with general $\mathbb{N}$-grading. Applications to the Frobenius complexity of determinantal rings are provided. (Received September 13, 2020)