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Michael J. J. Barry*, mbarry@allegheny.edu. *More on Periodicity and Duality associated with Jordan partitions.*

Let p be a prime and let r and s be positive integers with $r \leq s$. The **Jordan partition** $\lambda(r, s, p) = (\lambda_1, \dots, \lambda_r)$ of rs , where $\lambda_1 \geq \lambda_2 \geq \dots \geq \lambda_r > 0$, can be defined in terms of the tensor product of full unipotent Jordan block matrices of sizes r and s over a field F of characteristic p or in terms of the tensor product of indecomposable FG -modules of dimensions r and s where G is a cyclic p -power group. The λ_i are sizes of Jordan blocks and dimensions of indecomposable modules. If

$$\lambda(r, s, p) = (\lambda_1, \lambda_2, \dots, \lambda_r) = (m_1 \cdot \mu_1, \dots, m_k \cdot \mu_k)$$

where $\mu_1 > \mu_2 > \dots > \mu_k > 0$, denote the composition (m_1, m_2, \dots, m_k) of r by $c(r, s, p)$.

It is a consequence of work of Glasby, Praeger, and Xia (J. Algebra **450** (2016), 570–587) that if $r \leq p^n$, then $c(r, s, p)$ is periodic in the second variable s with a period length p^n and exhibits a reflection property within that period. We determine the least period length and we exhibit new partial subperiodic and partial subreflective behavior. (Received July 10, 2019)