

# Algebraic Structure of $\mathbb{Z}_p^\times$ and Related Integer Functions

Chu Wenchang – Lecce

Secondo Convegno Italiano di Teoria dei Numeri  
Parma, 13–15 Novembre 2003

For an odd prime  $p$ , the algebraic structure of the group  $\mathbb{Z}_p^\times$  under modular multiplication is investigated. Arithmetical identities on the sums related to integer functions are established. Other closed formulas on integer sums of radicals are obtained as consequences.