Constructing Units of Integral Group Ring

Raul Antonio Ferraz, Renata Marcuz
Departamento de Matemática
Universidade de São Paulo, São Paulo, Brazil
Email: raul@ime.usp.br, remarcuz@ime.usp.br

Abstract. Given G a group and R a unital ring, we denote by RG the group ring of G over R. As we know, the group of units of RG, $\mathcal{U}(RG)$, plays an important role in the investigation of the relation between group theoretic structure of G and its group ring. In this work, we describe a multiplicatively independent set, which generates the unit group of the integral group ring $\mathbb{Z}G$, where G is either $C_2 \times C_p$ or $C_2 \times C_2 \times C_p$, where C_m represents the cyclic group of order m and p is a suitable prime number.

Keywords. Cyclic Groups, Integral Group Rings, Normalize Units, Symmetric Units.

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