

NEW QUANTUM ARITHMETIC AND LOGIC GATES

A.SLIMANI and N.MEBARKI

*Laboratoire de Physique Mathématique et Subatomique
Physics Department, Faculty of Fundamental Sciences,
Constantine1 University, Constantine, Algeria*

ABSTRACT. A new quantum arithmetic and logic gate with good performance properties like the Qcost and Qdelay is developed. As an application, a new reversible comparator is constructed.