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**Tall Aadou\***, amadou.tall@aims-senegal.org, and **Sanghare Yacin Aly**. *Fast exponentiation methods using the generalized continued fractions.*

Exponentiation is one the basic and most important operation. There are several methods of computing  $x^n$ . An optimal method for any integer  $n$  doesn't exist. The aim of this paper is to present a new way of computing short addition-subtraction chains using the generalized continued fractions where subtraction is allowed. We will recover the most exponentiation methods. (Received September 21, 2015)