1046-11-2048 **Ahlam E Tannouri*** (`ahlam.tannouri@morgan.edu`), Mathematics Department, Morgan State University, 1700 E. Cold Spring, Baltimore, MD 21251, and **Sam F Tannouri** (`sam.tannouri@morgan.edu`). *On some fundamental properties and applications of continued fractions to coding theory.* Preliminary report.

In number theory the field of Diophantine approximation has a long history. Many methods for solving problems in this field have been invented using continued fractions as as a stepping stone. On the new era of advanced communication, fast arithmetic on hyperelliptic curves via continued fraction will be explored as an application to coding theory. (Received September 16, 2008)