1026-94-113 **Dorian Goldfeld*** (`goldfeld@columbia.edu`), Columbia University, Department of Mathematics, New York, NY 10027, **Iris Anshel** (`ianshel@securerf.com`), 31 Peter Lynas Court, Tenafly, NJ 07670, and **Michael Anshel** (`csmma@cs.ccny.cuny.edu`), Department of Computer Science, City College of New York, 138th Street & Convent Av, New York, NY 10031. *The Algebraic Eraser^{TM} for RFID.*

This talk will present the Algebraic Eraser^{TM} (AE) which encrypts data by erasing information using group actions on monoids. It will be demonstrated that the AE is an ideal primitive for use within lightweight cryptography such as RFID tags. Applications to authentication, encryption, untraceability, etc. will be given. This work was supported by SecureRF Corporation. (Received February 21, 2007)