1014-B1-132   **Ulrich A Hoensch*** (`hoenschu@rocky.edu`), 1511 Poly Drive, Billings, MT 59102. *Java Applets for a Cryptology Course.*

I will demonstrate the use of six Java applets that I have developed for an undergraduate course in cryptology. The applets are designed to allow students and instructors to encrypt and decrypt messages using several classical ciphers, including monoalphabetic, Vigenere, and Hill ciphers. Additionally, the applets can be used for the cryptanalysis of these classical ciphers; using tools such as statistical and digraph analysis, as well as the Kasiski test and polyalphabetic analysis, students will be able to "break" classical ciphers, using only statistical properties of the cipher text. A student program implementing Jefferson's Wheel Cipher will also be presented. These applets have been successfully used in a special topics math course for liberal arts students. (Received August 01, 2005)