1020-94-236

Iwan M. Duursma^{*} (duursma@math.uiuc.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, 1409 W. Green Street (MC-382), Urbana, IL 61801-2975. On tresholds for secret sharing schemes. Preliminary report.

A linear secret sharing scheme has two tresholds such that any small enough group has no information about the secret while any large enough group can recover the secret. For a given scheme and an assigned probability p between 0 and 1 we determine the number of participants needed to recover the secret with probability at least p. This will be used to select good codes for linear secret sharing schemes. (Received August 29, 2006)