





 Chapter 1 goes here.

**Table 1:** The probability ( $P$ ) of a spot pattern occurring, calculated as:  $(1 - P)^M + MP(1 - P)^{M-1}$  and the corresponding information content ( $I$ ) for a range of population sizes ( $M$ ).

Population size	Probability of occurrence	Information content (bits)
50	$\pm 3 \times 10^{-3}$	$> 8.38$
100	$\pm 1.49 \times 10^{-3}$	$> 9.39$
500	$\pm 2.969 \times 10^{-4}$	$> 11.72$
1,000	$\pm 1.4862 \times 10^{-4}$	$> 12.72$

