

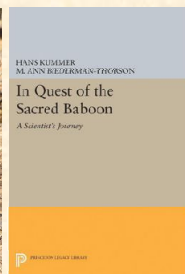
Collective decision



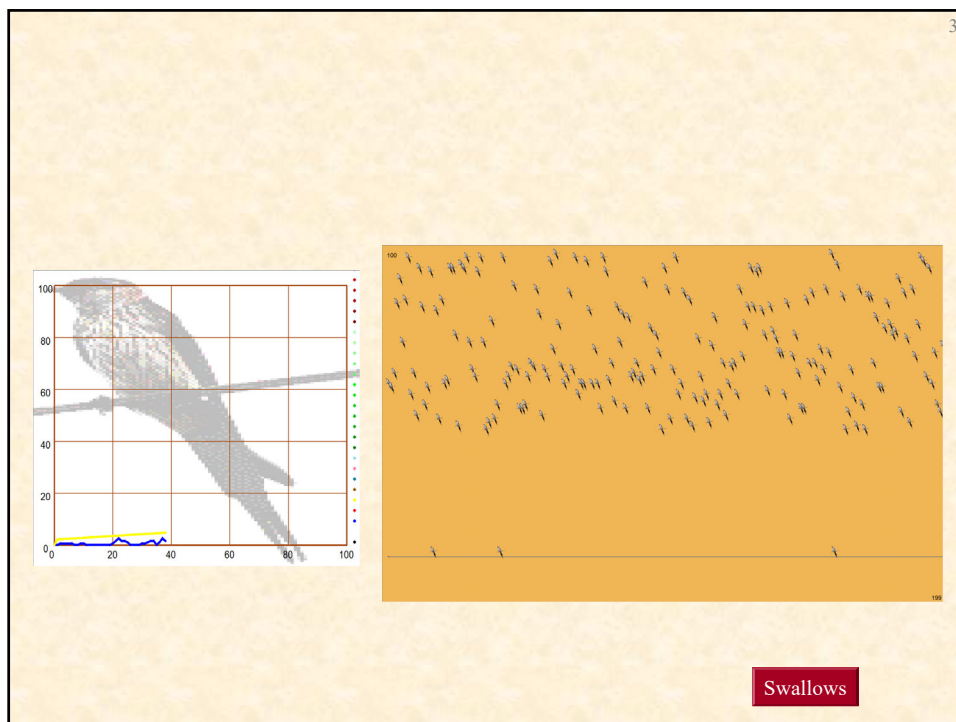
Telecom Paris – nov.-24

J-L. Dessalles

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Kummer, H. (1997). *In quest of the sacred baboon: A scientist's journey*. Princeton University Press.



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Swallows

$$\Pr[G(K+1)|G(K)] = \frac{\Pr[G(K+1) \& G(K)]}{\Pr[G(K)]}$$

$$= \frac{\Pr[G(K+1)]}{\Pr[G(K)]}$$

$$= 1 - [1 - p_1(K)]^{N-K}$$

$p_1(K)$ probability for a bird to join a group of size K at time t .

$$p_1(K) = AK + Bt + C$$

$G(K)$ probability for a group to reach at least size K at time t

Swallows

