## Evolution of the transcription pattern steepness over time

At a given time, the hb pattern is characterized by the snapshot proximal hb promoter's activity  $P_{bright}$ , which takes value of 0 if the nucleus has no active locus and 1 if the nucleus has an active locus at the given time. At a given position,  $P_{bright}$  has a mean value of  $P_{SPOT}$  (as described in the Main manuscript). We fit the values of  $P_{bright}$  along the AP axis with a sigmoid function and infer on the pattern steepness H(t) as a function of time (S8 Fig) for each nuclear cycle.