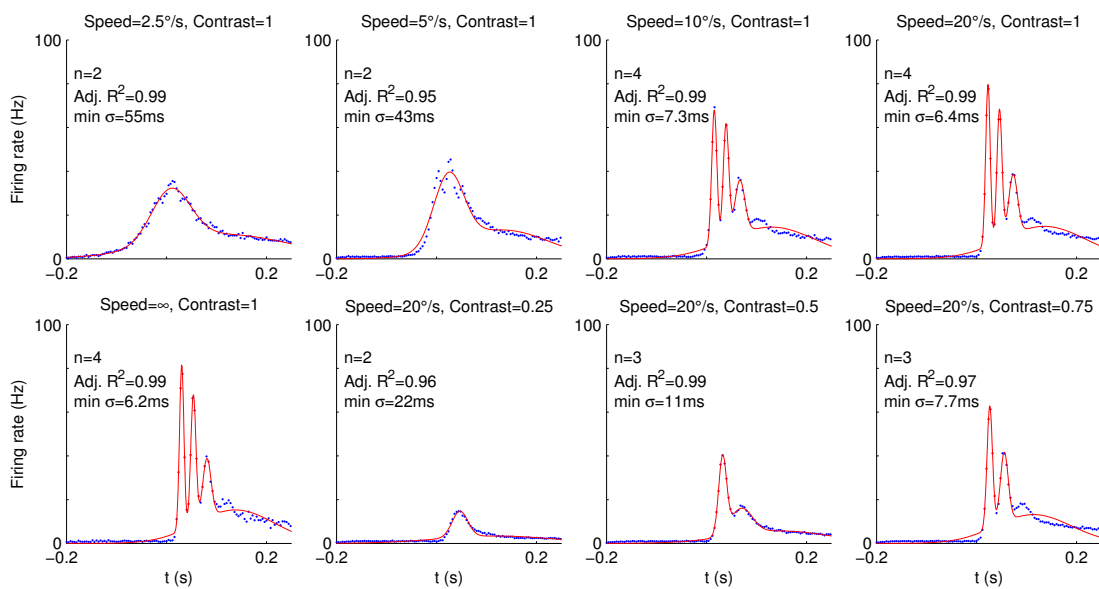


1 **Microsaccades enable efficient synchrony-based coding in the**  
2 **retina: a simulation study.**

3 *Timothée Masquelier, Geoffrey Portelli, Pierre Kornprobst*

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7 Supplementary Figure S1. Estimating the spike time dispersions by fitting the PSTHs with  
8 Gaussian mixture models. For each condition, the number of Gaussians we used  $n$  is the minimal  
9 number for which the goodness-of-fit parameter "Adjusted R<sup>2</sup>" is greater than 0.95. Then we  
10 defined the temporal dispersion as the minimum of the Gaussians' sigmas (which in practice  
11 corresponds to the earliest peak).

12

13 Supplementary Video S1. Stimulus and resulting RGC activity. Panel "Trajectory" plots the gaze  
14 direction in degrees. Panel "Input video" represents the retinal image. Panel "RGC spikes" shows  
15 the spikes emitted by ON- and OFF-center RGCs, respectively in white and black. Notice that after  
16 each MS there is a volley of synchronous spikes corresponding to the stimulus edges. Panel  
17 "Mean RGC rate" shows the population activity. The red line indicates the current time.