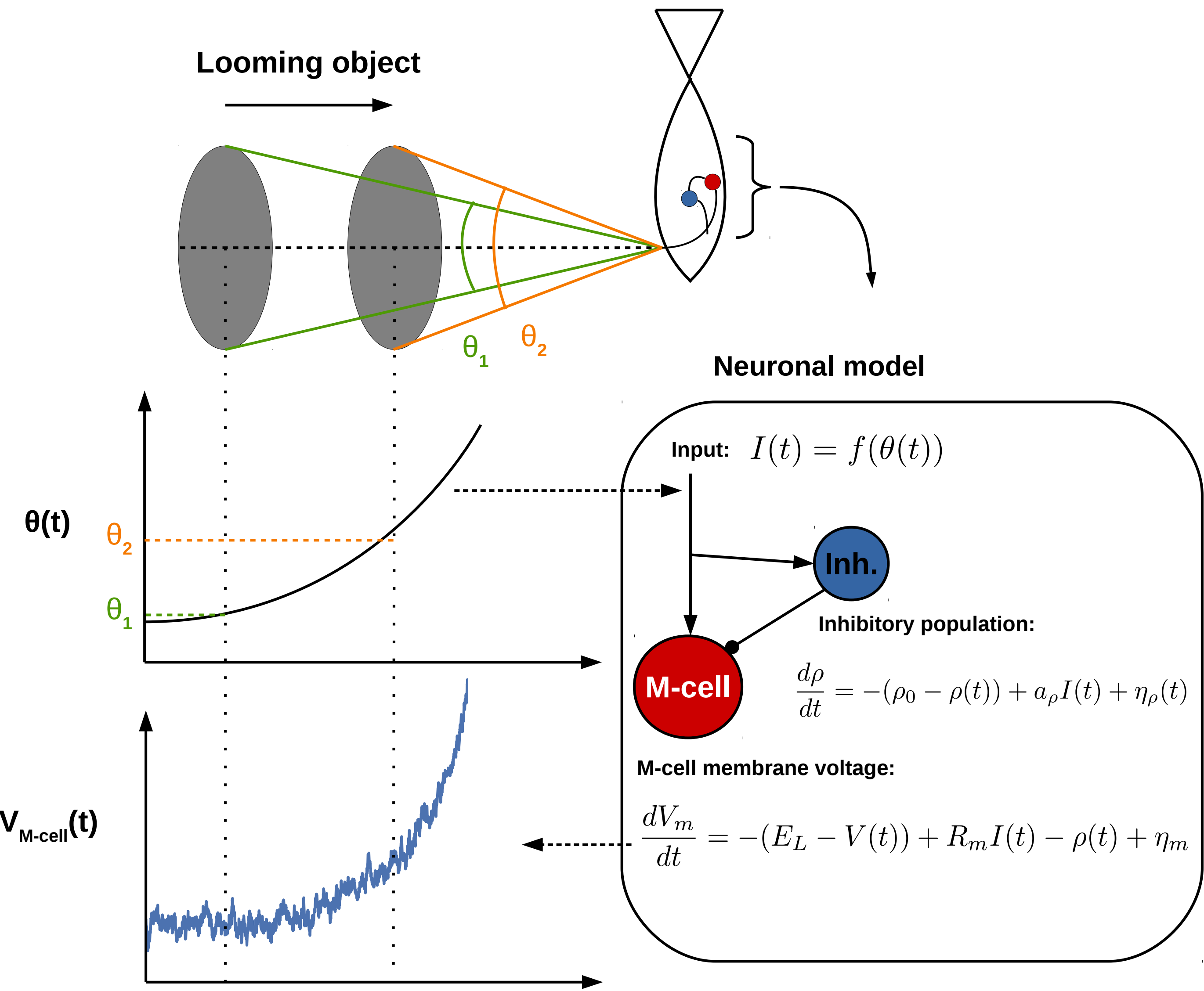


Neuronal model for startling coupled with a collective behavior model

Introduction

- What we know
- What we don't know yet
- What we do here
-



Neuronal model reproduces experimental response properties

Using the instantaneous visual angle as input for the neuronal model we can reproduce the patterns of response distance, time and time-to-collision as well as the response angle that were found for in an experiment with different approach speeds of a looming stimulus.

Coupling with collective behavior model

$$\frac{d\varphi_i}{dt} = \frac{1}{s_i + c_s} (F_{i,\varphi} + \eta_{i,\varphi})$$

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