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Dear editor,

Please find enclosed a manuscript entitled “Learning heterogeneous delays in a layer of spiking neurons for fast motion detection” for your consideration as an article in *Biological Cybernetics*. All the authors have been involved with the work, have approved the manuscript and agreed to its submission.

Our manuscript describes a novel method inspired by neuroscience to overcome some challenges faced in computer vision, notably when dealing with large amounts of data. By using heterogeneous delays on different synapses, this novel spiking neuron method is able to detect spiking motifs and we validate” the method on synthetic and then realistic data. Results show that this method could provide a path for future spiking neural network algorithms using less energy for a similar performance as thier analog counterparts.

Our manuscript follows our submission and presentation during the “NeuroVision” workshop. In addition, all the python code needed to reproduce figures and supplementary materials will be fully open-sourced once the article will be published.

Sincerely yours,

The authors, Antoine Grimaldi and Laurent Perrinet