
What does the eye tell the brain? a journey from High Energy Physics to neural Systems

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The back of the eye is lined by an extraordinary biological pixel detector, the retina. This neural network is able to extract vital information about the external visual world, and transmit this information in a timely manner to the brain. In this talk, after a brief introduction to vision, I will describe a system we have implemented to study how the retina processes and encodes dynamic visual images. This system can simultaneously record the extracellular electrical activity from hundreds of retinal output neurons as a movie is focused on the input neurons. I will show some first results obtained with this system, and describe some additional applications. This project is based on techniques and expertise acquired in the development of silicon microstrip detectors for high energy physics experiments.

Lundi 11 février à 15h

Salle André Berthelot, bât. 141

Le café sera servi 15 minutes avant

