

## **Alain Destexhe**

*How much stochastic is neuronal activity ?*

This talk will overview different measurements of the stochastic activity of neurons, at the single-cell and population levels. Aspects covered will include the irregular and asynchronized firing activity of neurons in awake animals, the apparent Poisson nature of neuronal discharges, the Gaussian nature of fluctuations at the level of the membrane potential and the nature of the underlying conductance fluctuations. We will examine to what extent models can reproduce these observations, and point to aspects that models do not reproduce well.