

## **Neuromorphic computing: towards a brain-inspired 'intelligence'**

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The brain is one of the most remarkable examples of how an organized and complex system can express impressive computational capabilities. The emergent collective dynamics of an intricate web of several billions of neurons is indeed capable to unfold the computational primitives underlying high-level cognitive functions like decision, planning and reasoning. These functions reach unattainable peaks in the Human brain: a reference for the concepts of 'intelligence' and of intelligent behavior. It then offers a successful model of computational system to be in principle mimicked and replicated. Here I will show how cognitive functions are performed by the brain referring to a specific example: the motor decision. I will then introduce recurrent neural networks as effective models of cortical networks working as 'analog computers' eventually referring to the so-called 'neuromorphic computing'. I will conclude with a bird-eye view on some of the current technological facilities implementing this kind of brain-inspired 'intelligence'.