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Subject: [NSCI] NSCI Seminar Series Talk - Tuesday, April 11 - Neuromorphic Silicon Learning Machines
Date: Monday, April 10, 2017 9:47:17 AM
Attachments: ATT00001.txt

Neuromorphic Silicon Learning Machines

Gert Cauwenberghs

University of California – San Diego

Tuesday, April 11, 2017

81-1A116: Boulder: 11:00 AM (MT) – Speaking in Boulder

Building 221, Room B-145, Gaithersburg: 1:00 PM (EST)

Learning and adaptation are key to natural and artificial intelligence in complex and variable environments. Advances in machine learning and system-on-chip very-large-scale-integration have led to the development of massively parallel silicon learning machines with pervasive real-time adaptive intelligence that begin to approach the efficacy and resilience of biological neural systems, and already exceed the nominal energy efficiency of synaptic transmission in the mammalian brain. I will highlight examples of neuromorphic learning systems-on-chips with applications in template-based pattern recognition, vision processing, and human-computer interfaces, and outline emerging scientific directions and engineering challenges in their large-scale deployment.

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