

Laboratoire J. A. Dieudonné
Séminaire commun des équipes :
EDP et Interfaces

Vendredi 12 Septembre à 11h
Salle n°1 du Laboratoire J. A. Dieudonné



Nous accueillerons le Professeur

Leon O. Chua

University of California, Berkeley et Distinguished Professor, Technische Universität München

qui parlera de:

Memristor: Device With Intelligence

Résumé: Although postulated in 1971, the memristor has attracted worldwide attention from academia and industry only after Hewlett-Packard published a working nano-memristor device in the 1 May 2008 issue of Nature [1]. An acronym for *memory resistor*, the memristor is poised to revolutionize future generations of computers, ipads, smart phones, etc.

Among many applications from numerous disciplines including biology, botany, physics, mathematics, etc., the memristor can be used to emulate *synapses* and the *Hodgkin-Huxley Equations*, and is therefore the right stuff for building intelligent brain-like machines. This lecture explains what makes the memristor such a versatile device and answers many questions that memristor researchers are afraid to ask.

Biographie: Leon Chua is a foreign member of Academia Europaea and the Hungarian Academy of Sciences. He has been awarded 7 patents and 14 Doctor Honoris Causa from major universities worldwide. He has won many prizes, including the Guggenheim Fellowship and the EC Marie Curie Fellowship.

Cordialement,

Les organisateurs : Thierry Goudon, Sebastian Minjeaud, Roland Masson, Patrick Cassam-Chenaï, Benjamin Mauroy et Fernando Peruni.

Webographie relative au Memristor :

[1] <http://www.nature.com/nature/journal/v453/n7191/full/nature06932.html>

<http://www8.hp.com/hpnext/posts/beyond-dram-and-flash-part-2-new-memory-technology-data-deluge>

<http://fr.sott.net/article/11200-Le-memristor-ferroelectrique-serat-il-la-memoire-du-futur>

http://www3.nd.edu/~cnaa2014/MMS_Program.pdf

<http://research.microsoft.com/apps/video/dl.aspx?id=204430>