

All faculty and students are cordially invited to  
**The Seminar Series on  
Engineering Neuroscience & Health  
At the University of Southern California  
Monday, October 7<sup>th</sup> 2013  
4:00 p.m.**

**Also open and free access via live web-cast and web-archive**

**Presenting:  
Eugene M. Izhikevich  
Brain Corporation, San Diego, CA**

## **Spikes**

### **Abstract**

Most communication in the brain is via spikes. While we understand the spike-generation mechanism of individual neurons, we fail to appreciate the spike-timing code and its role in neural computations. The speaker starts with simple models of neuronal spiking and bursting, describes small neuronal circuits that learn spike-timing code via spike-timing dependent plasticity (STDP), and finishes with biologically detailed and anatomically accurate large-scale brain models.

**Hosted by:  
Prof. Francisco Valero-Cuevas  
Locations:**

*Seminar is simultaneously presented*

**UPC: HNB 100 - Live**

**Hedco Neurosciences Building**

UPC Campus Map/Directions: <http://www.usc.edu/about/visit/upc/>

**HSC: 147 - Video Conference**

**Center for the Health Professional**

HSC Campus Map/Directions: <http://www.usc.edu/about/visit/hsc/>

## **Live webcast and web-archive**

<http://capture.usc.edu/Mediasite/Catalog/Full/946350f1ca8440e7b867e16adba01e4e21/?state=xJE9EJlqAdw4AAlKfp>

**Complete schedule of speakers and information about all prior seminars can be found at**

<http://bbdl.usc.edu/ENH>

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