

# Engineering Neuroscience & Health

Department of Biomedical Engineering

Division of Biokinesiology and Physical Therapy

USC  
UNIVERSITY  
OF SOUTHERN  
CALIFORNIA



## Presents:

**Eugene M. Izhikevich**

**Brain Corporation,  
San Diego California**

**Monday**

**October 07, 2013**

**4:00 pm**

**Refreshments will be  
served: 3:30 – 4:00 pm**

ENH SEMINAR SERIES

## Spikes

**Eugene M. Izhikevich, Ph.D.**  
Co-Founder, Chairman and CEO  
Brain Corporation

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.

**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/>

## Web Cast

<http://capture.usc.edu/college/Catalog/?cid=af180d48-ceff-42b9-a35c-eb199daed320>

Information about all seminars can be found at  
<http://bbdl.usc.edu/ENH-Schedule.php>