# Engineering Neuroscience & Health

Department of Biomedical Engineering Division of Biokinesiology and Physical Therapy





### **Presents:**

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Monday

November 25, 2013 4:00 pm

Refreshments will be served 3:30-4pm

## Conversion of sensory signals into perceptual decisions

### Ranulfo Romo Trujillo, Ph.D.

**Professor** 

Universidad Nacional Autonoma de Mexico (UNAM)

Most perceptual tasks require sequential steps to be carried out. This must be the case, for example, when subjects discriminate the difference in frequency between two mechanical vibrations applied sequentially to their fingertips. This perceptual task can be understood as a chain of neural operations: encoding the two consecutive stimulus frequencies, maintaining the first stimulus in working memory, comparing the second stimulus to the memory trace left by the first stimulus, and communicating the result of the comparison to the motor apparatus. The divisions between these steps may be artificial, but breaking the problem into pieces is helpful. Here I discuss several such pieces, although, in the long run, I aim for an integrated understanding of the perceptual processes, at least to the extent possible within the minimalist environment of a laboratory task.

**Locations:** *Seminar is simultaneously presented* 

UPC: HNB 100 - Live **Hedco Neurosciences Building** 

**UPC Campus** 

Map/Directions: <a href="http://www.usc.edu/about/visit/upc/">http://www.usc.edu/about/visit/upc/</a>

**HSC:** 147 – Video Conference **Center for the Health Professional HSC Campus** 

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#### **Web Cast**

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

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