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# Welcome to the 24th Joint Symposium on Neural Computation

**Institute for Neural Computation,  
University of California, San Diego  
Salk Institute, La Jolla**

**San Diego Supercomputer Center  
Auditorium East, UC San Diego**

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**May 20, 2017**

In 1994, the Institute for Neural Computation at UCSD hosted the first Joint Symposium on Neural Computation with Caltech. This Symposium brought together students and faculty for a day of short presentations. Since then, this Symposium has rotated between UCSD, Caltech, UCI, UCLA and USC.

## **PROGRAM**

### **8:30 am - Registration and breakfast**

**Chair: Terrence Sejnowski**

**9:00 am - Saket Navlaka** – Salk Institute  
"A neural algorithm for similarity search"

**9:30 am - Bruce McNaughton** - UCI/Lethbridge  
"Zipping and unzipping the hippocampal index code"

**10:00 am - Tad Blair** – UC Los Angeles  
"Conjugate coding of position and velocity by within- and between-cell spike intervals"

**10:30 am - Break**

**10:45 am- Keynote: David Anderson** – Caltech  
"Neural control of social behaviors and internal states"

**11:45 am - Spotlights**

**12:15 pm - Lunch and Posters/Demos**

**Chair: Gert Cauwenberghs**

**1:45 pm- John Iversen**- Institute for Neural Computation  
"Rhythms in Music, Language and Brain: Neural dynamics of beat perception"

**2:15 pm - Terry Sanger** – USC  
"Why brains don't use floating-point arithmetic: Scalable precision, instantaneous computation, and efficient storage in rate-coded spiking networks"

**2:45 pm - Zhuowen Tu** – UC San Diego  
"Deep supervision for deep learning: training, regularization, and multi-scale learning"

**3:15 pm - Break**

**3:30 pm - Xin Wang** - Intel/Nervana  
"Building a platform for machine intelligence"

**4:00 pm – Blythe Towal** - Qualcomm  
"Deep learning at the edge: How we get there and how insight from neuroscience can help"

**4:30 pm - Keynote: Hava Siegelmann** - DARPA  
"Computational principles in the brain"

**5:30 pm - Closing Remarks: Terrence Sejnowski**