

# Neural Engineering Journal Club - 2012

April 19, 2012

The new Neural Engineering Journal Club will be held every Friday at 10am in the conference room on 5th floor, Steinman Hall.

The aim of the meetings is to discuss about relevant papers that are not necessary strictly related to what we are working on. Every week one of us will lead the discussion. Everyone is invited to read the paper before the meeting such that we can productively spend time talking about that and exchanging ideas.

We think that going a little bit out of our comfort-zone could enrich our knowledge and give us new inputs for our own research.

Every suggestion about any paper you would like to talk about is very welcome.

Here you can find the calendar:

## **01/20/2012 - Joao Dias**

Nieuwenhuis S, Forstmann BU, Wagenmakers EJ., Erroneous analyses of interactions in neuroscience: a problem of significance., *Nat Neurosci.* 2011 Aug 26;14(9):1105-7.

## **01/27/2012 - Mattia Arlotti**

Shu Y, Hasenstaub A, Duque A, Yu Y, McCormick DA., Modulation of intracortical synaptic potentials by presynaptic somatic membrane potential., *Nature.* 2006 Jun 8;441(7094):761-5.

## **02/03/2012 - Asif Rahman**

Kajikawa Y, Schroeder CE., How local is the local field potential?, *Neuron.* 2011 Dec 8;72(5):847-58.

## **02/10/2012 - Belen Lafon**

Diekelmann S, Born J., The memory function of sleep., *Nat Rev Neurosci.* 2010 Feb;11(2):114-26.

## **02/17/2012 - Lazaros Gallos - external speaker**

Gallos LK, Makse HA, Sigman M., A small world of weak ties provides optimal global integration of self-similar modules in functional brain networks., *Proc Natl Acad Sci U S A.* 2012 Feb 3.

## **02/24/2012 - Greg Kronberg**

Henneberger C, Papouin T, Oliet SH, Rusakov DA., Long-term potentiation depends on release of D-serine from astrocytes., *Nature.* 2010 Jan

14;463(7278):232-6.

**03/02/2012 - Alain de Cheveigné**

de Cheveigné A., Quadratic component analysis., Neuroimage. 2012 Feb 15;59(4):3838-44.

**03/09/2012 - Arne Weigenand**

Riedner BA, Hulse BK, Murphy MJ, Ferrarelli F, Tononi G., Temporal dynamics of cortical sources underlying spontaneous and peripherally evoked slow waves., Prog Brain Res. 2011;193:201-18..

**03/16/2012 - Justin Rice**

Mahoney MW, Drineas P., CUR matrix decompositions for improved data analysis., Proc Natl Acad Sci U S A. 2009 Jan 20;106(3):697-702.

**03/23/2012 - Marta Isabel Vanegas Arroyave**

Laczó B, Antal A, Niebergall R, Treue S, Paulus W., Transcranial alternating stimulation in a high gamma frequency range applied over V1 improves contrast perception but does not modulate spatial attention., Brain Stimul. 2011 Sep 15.

**03/30/2012 - Davide Reato**

Aglioti SM, Cesari P, Romani M, Urgesi C., Action anticipation and motor resonance in elite basketball players., Nat Neurosci. 2008 Sep;11(9):1109-16.

**04/06/2012 - Jacek Dmochowski**

Tsai JJ, Wade AR, Norcia AM., Dynamics of normalization underlying masking in human visual cortex., J Neurosci. 2012 Feb 22;32(8):2783-9.

**04/13/2012 - Martin Elias Costa**

Abe K, Watanabe D., Songbirds possess the spontaneous ability to discriminate syntactic rules., Nat Neurosci. 2011 Jun 26;14(8):1067-74.

**04/20/2012 - No journal club**

**04/27/2012 - Annabelle Blangero**

Hunt LT, Kolling N, Soltani A, Woolrich MW, Rushworth MF, Behrens TE., Mechanisms underlying cortical activity during value-guided choice., Nat Neurosci. 2012 Jan 8;15(3):470-6, S1-3.

Here you can also find a list of possible papers to talk about (any volunteer?):

- Wake H, Lee PR, Fields RD., Control of local protein synthesis and initial events in myelination by action potentials., Science. 2011 Sep 16;333(6049):1647-51.
- McDermott JH, Simoncelli EP., Sound texture perception via statistics of the auditory periphery: evidence from sound synthesis., Neuron. 2011 Sep 8;71(5):926-40.

- Panatier A, Valle J, Haber M, Murai KK, Lacaille JC, Robitaille R., Astrocytes are endogenous regulators of basal transmission at central synapses., *Cell*. 2011 Sep 2;146(5):785-98.
- Hodgkin AL, Huxley AF., A quantitative description of membrane current and its application to conduction and excitation in nerve., *J Physiol*. 1952 Aug;117(4):500-44.
- Grynkiewicz G, Poenie M, Tsien RY., A new generation of Ca<sup>2+</sup> indicators with greatly improved fluorescence properties., *J Biol Chem*. 1985 Mar 25;260(6):3440-50.
- Gallese V, Fadiga L, Fogassi L, Rizzolatti G., Action recognition in the premotor cortex., *Brain*. 1996 Apr;119 ( Pt 2):593-609.
- Nakatomi H, Kuriu T, Okabe S, Yamamoto S, Hatano O, Kawahara N, Tamura A, Kirino T, Nakafuku M., Regeneration of hippocampal pyramidal neurons after ischemic brain injury by recruitment of endogenous neural progenitors., *Cell*. 2002 Aug 23;110(4):429-41.
- Riesenhuber M, Poggio T., Hierarchical models of object recognition in cortex., *Nat Neurosci*. 1999 Nov;2(11):1019-25.
- Watts DJ, Strogatz SH., Collective dynamics of 'small-world' networks., *Nature*. 1998 Jun 4;393(6684):440-2.
- Toyozumi T, Pfister JP, Aihara K, Gerstner W., Generalized Bienenstock-Cooper-Munro rule for spiking neurons that maximizes information transmission., *Proc Natl Acad Sci U S A*. 2005 Apr 5;102(14):5239-44.
- Bazhenov M, Rulkov NF, Timofeev I., Effect of synaptic connectivity on long-range synchronization of fast cortical oscillations., *J Neurophysiol*. 2008 Sep;100(3):1562-75.
- Rabinowitz NC, Willmore BD, Schnupp JW, King AJ., Contrast gain control in auditory cortex., *Neuron*. 2011 Jun 23;70(6):1178-91.