



## Editorial

# Computational Neuroscience: Trends in Research 2005

The papers of this proceedings volume were originally presented at the Computational Neuroscience Meeting (CNS\*04) held from Sunday, July 18 to Thursday, July 22, 2004 in Baltimore, MD, USA. All papers were peer reviewed prior to the meeting and the final revised versions were submitted in September last year.

After meetings in Chicago, USA and Alicante, Spain, the Computational Neuroscience Meeting returned to the east coast of the USA. Abstract submissions were similar to the Chicago meeting: 240 abstracts were submitted, of which 239 were accepted for presentation at the meeting. Like Alicante, the meeting in Baltimore consisted of three days of oral presentations and evening poster sessions, followed by two days of workshops. Meeting attendance was quite high with 377 registrations.

The most significant changes to the CNS meeting affected directly the proceedings volume which you are reading now. First, we stopped producing a separate book volume of the proceedings. Although these books were very nice and appreciated by authors, they were too expensive for a low-cost meeting. The 2004 and following proceedings will appear only as a special issue of the journal *Neurocomputing*. Second, we reviewed the proceedings papers more seriously than before. All papers in this issue were reviewed by two independent reviewers (see list below) and the authors had to resubmit a revision based on the reviewers' comments. Of the 135 papers which were submitted for publication, 18 were rejected, some after resubmission.

The meeting was held at the historic Lord Baltimore hotel which is close to the nicely renovated harbor area with lots of restaurants and nightlife. The conference dinner returned to the beautiful aquarium, which was also the site of the CNS\*93 dinner but has changed quite a lot since. The local organization was excellent; we especially want to thank both Asaf Keller, who invested a lot of energy in solving the many small problems typical for a large meeting, and the friendly students who were always on hand to help.

A total of 116 papers are published in this proceedings volume. The papers are ordered by topic, like the presentations at the meeting but without making any distinction between oral or poster presentations. I hope you enjoy reading these papers which represent the work of enthusiastic researchers, many of whom are young and represent the future of the field of computational neuroscience.

### **Conference details**

#### *Program chair:*

Erik De Schutter (University of Antwerp, Belgium)

#### *Local organizer:*

Asaf Keller (University of Maryland School of Medicine, USA)

#### *CNS – Organization for Computational Neurosciences:*

Christiane Linster (Cornell University, USA), President

Todd Troyer (University of Maryland, USA), Vice-President

Linda Larson Prior (Touro University, USA), Treasurer

Erik De Schutter (University of Antwerp, Belgium), Program-chair

Philip Ulinski (University Chicago, USA), Grants-chair

#### *Government Liaison:*

Dennis Glanzman (NIMH/NIH, USA) and Yuan Liu (NINDS/NIH, USA)

#### *Program Committee:*

Nicolas Brunel (Universite Paris Rene Descartes, France)

Alain Destexhe (CNRS Gif-sur-Yvette, France)

Bill Holmes (Ohio University, USA)

Hidetoshi Ikeno (Himeji Institute of Technology, Japan)

Don H. Johnson (Rice University, USA)

Leslie M. Kay (University of Chicago, USA)

Barry Richmond (NIMH, USA)

Eytan Ruppin (Tel Aviv University, Israel)

Frances Skinner (Toronto Western Research Institute, Canada)

#### *Website and software:*

Mike Wijnants

*Reviewers:*

Abbott Larry, Aertsen Ad, Ahrens Kurt, Ambros-Ingerson Jose, Amit Daniel, Anderson Charles, Anderson David, Apicella Paul, Badoual Mathilde, Bertram Richard, Bhalla Upi, Blackwell Kim, Booth Victoria, Borenstein Elhanan, Borisjuk Alla, Borst Alexander, Bressler Steve, Brette Romain, Brody Carlos, Brown Emery, Brunel Nicolas, Butera Robert, Calabrese Ron, Canavier Carmen, Caputi Angel, Chechik Gal, Chow Carson, Clark John, Conner Ed, Crook Sharon, De Ruyter Rob, De Zeeuw Chris, Del Negro Christopher, Del Giudice Paolo, Deneve Sophie, Destexhe Alain, Diamond Mathew, Dimitrov Alex, Doiron Brent, Dror Gideon, Durstewitz Daniel, Eliasmith Chris, Erdi Peter, Ermentrout Bard, Ernst Udo, Eurich Christian, Fellous Jean-Marc, Ferree Tom, Forger Daniel, Frank Loren, Freeman Walter, Fusi Stefano, Gabbiani Fabrizio, Gerstner Wulfram, Gielen Stan, Gillis Jesse, Glantz Ray, Golomb David, Graham Lyle, Gruner Charlotte, Guigon Emmanuel, Gutkin Boris, Haberly Lewis, Hakim Vincent, Hansel David, Hasselmo Mike, Hatton Glenn, Hausser Michael, Herrmann Michael, Hertz John, Hines Michael, Hirata Yutaka, Holmes William, Horn David, Izhikevich Eugene, Jin Dezhe, Johnson Don, Jung Ranu, Karniel Amir, Kaufman Alon, Keinan Alon, Komendantov Alexander, Konig Peter, Kreiman Gabriel, Krukowski Anton, Kunc Steve, Lane Courtney, Latham Peter, Lazar Aurel, Lee Tai Sing, Lewis John, Lewis Tim, Lexa Michael, Li Zhaoping, Lindner Benjamin, Linster Christiane, Longtin Andre, Lopes Da Silva Fernando, Manor Yair, Mato German, Mehta Mayank, Meir Ronny, Mel Bartlett, Merenyi Ersebet, Meunier Claude, Miller John, Mitra Partha, Nadal Jean-Pierre, Nadel Lynn, Nadim Farzan, Nakauchi Shigeki, Niebur Ernst, Norman Ken, Nowak Rob, Optican Lance, Oram Mike, Orban Gergo, Oweiss Karim, Panzeri Stefano, Parga Nestor, Pawelzik Klaus, Polani Daniel, Potts Geoffrey, Rabinovich Mikhail, Ratman Rama, Read Jennifer, Reggia James, Regier Terry, Reynolds John, Richmond Barry, Rinzel John, Rolls Edmund, Rotstein Horacio, Rozell Chris, Rudolph Michael, Sahani Maneesh, Sandbank Ben, Saraga Fernanda, Schiff Steve, Schultz Simon, Segev Idan, Sejnowski Terrence, Seshagiri Chandran, Shamma Shihab, Shouval Harel, Skinner Frances, Solan Zach, Sommer Marc, Stemmler Martin, Steuber Volker, Tanaka Shigeru, Tiesinga Paul, Titone Debra, Treves Alessandro, Troyer Todd, Ulinski Phil, Van Rossum Mark, Van Vreeswijk Carl, Van Drongelen Wim, Vanpelt Jaap, Victor Jonathan, Wehr Michael, Willshaw David, Wilson Charlie, Yamamoto Kenji.

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