

Introduction

## Computational Neuroscience (CNS\*2008)

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The international *Computational Neuroscience* meeting (CNS) has been a premier forum for presenting experimental and theoretical results exploring the biology of computation in the nervous system for the last 17 years. The meeting is organized by the *Organization for Computational Neurosciences*, a non-profit organization governed by an international executive committee and board of directors. A separate program committee is responsible for the scientific program of the meeting. Participants at the meeting are from academia and industry. The meeting not only provides a venue for research presentation and discussion by senior scientists but actively offers a forum for promoting and supporting young scientists and students from around the world.

The papers in this supplemental volume were presented at the 17<sup>th</sup> annual Computational Neuroscience Meeting (CNS\*2008) held in Portland, Oregon, USA from Saturday July 19 to Thursday July 24, 2008. The meeting consisted of a welcome reception, three days of oral and poster sessions, a banquet, and two days of workshops. The main meeting was held at the Benson Hotel in downtown Portland and workshops were held at the Oregon Health and Sciences University. This year the meeting included several invited talks linking systems biology and computational neuroscience. These talks focused on the use of computational models to examine the role of sub-cellular processes in memory and synaptic plasticity. In addition Erik De Schutter discussed the relationship between computational neuroscience and systems biol-

ogy and the future of computational neuroscience in a special lecture "Computational Neuroscience and Systems Biology: the Past, the Now and the Future".

Abstracts for the meeting were submitted in early February. Those authors wanting an oral presentation also submitted an extended summary of their work. The abstracts were reviewed by the Program Committee and each extended summary was additionally reviewed and scored by three independent reviewers. In the end 173 papers were accepted for the meeting. The review comments and scores for the extended summaries were used by the Program Committee to construct the final oral and poster programs.

Abstracts for invited talks are given first, followed by abstracts of oral presentations in order of presentation at the meeting and abstracts for posters. Abstracts for poster presentations are grouped by topic according to keywords chosen by the authors in their initial submissions. Clearly some papers could fit under multiple topics, so this classification is by no means precise. Nevertheless, these abstracts represent a sampling of some of the exciting work being done today, often by young researchers, in the field of Computational Neuroscience.

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