Neuro Informatics 2014

PROGRAM BOOK

incf International Neuroinformatics Coordinating Facility

The International Neuroinformatics Coordinating Facility (INCF), together with its 17 member countries, coordinates collaborative informatics infrastructure for neuroscience and manages scientific programs to develop standards for data sharing, analysis, modeling, and simulation in order to catalyze insights into brain function in health and disease. INCF is an international organization launched in 2005, following a proposal from the Global Science Forum of the OECD to establish international coordination and collaborative informatics infrastructure for neuroscience. INCF is hosted by Karolinska Institutet and the Royal Institute of Technology, and the Secretariat is located on the Karolinska Institute Campus in Solna. INCF currently has 17 member countries across North America, Europe, Australia, and Asia. Each member country establishes an INCF National Node to further the development of Neuroinformatics and to interface with the INCF Secretariat. The mission of INCF is to share and integrate neuroscience data and knowledge worldwide, with the aim to catalyze insights into brain function in health and disease.

To fulfill this mission, INCF establishes and operates scientific programs to develop standards for neuroscience data sharing, analysis, modeling, and simulation. Currently there are 4 program areas: Digital Brain Atlasing, Ontologies for Neural Structures, Multiscale modeling, and Standards for Data Sharing. More than 180 leading international researchers are involved in the programs. A cloud-based data federation - the INCF Dataspace - has been developed to enable collaboration between researchers through the sharing of neuroscience data, text, images, sounds, movies, models, and simulations.

Learn more: incf.org
software.incf.org
neuroinformatics2014.org

INCF Member Countries*

Belgium
Czech Republic
Finland
France
Germany
India
Italy
Japan
The Netherlands
Norway
Poland
Republic of Korea
Sweden
Switzerland
United Kingdom
United States
Victoria, Australia

*as of August 2014

Welcome to the 7th INCF Congress in Leiden, The Netherlands!

The 7th Neuroinformatics Congress meets this year, for the first time, in Leiden, Netherlands. The congress program reflects a growing interest in all aspects of neuroinformatics and "Big Data" analysis, fueled in part by the EU Human Brain Project and the BRAIN initiative in the US. Speaking for the organizers and for the Program Committee, I hope you enjoy it!

Neuroinformatics 2014 is organized by the INCF together with the Netherlands INCF Node. Overall the program structure is similar to previous years, mostly single track with 6 keynotes, 5 workshops, and 2 poster and demo sessions. The keynote speakers represent a broad range of data-rich neuroscience fields, ranging from epigenetics in the brain to multi-scale modeling of information processing in the whole brain. Two of the workshops are concurrent and were selected from submitted proposals. As last year, there will be an oral presentations session for which 9 submitted abstracts were selected by the Program Committee out of 43 abstracts that requested an oral presentation. This session will bring you the newest science and it presents research topics that are of special interest to attendees.

Mary B Kennedy
California Institute of Technology
INCF 2014 Program Committee Chair

Program Committee

Richard Baldock, University of Edinburgh, UK
Avrama Blackwell, George Mason University, USA
Erik De Schutter, Okinawa Institute of Science and Technology, Japan
Henry Markram, EPFL, Switzerland
Maryann Martone, University of California, San Diego, USA
Russell Poldrack, University of Texas at Austin, USA
Paul Tiesinga, Radboud University, The Netherlands
Yoko Yamaguchi, RIKEN Brain Science Institute, Japan
Mathew Abrams (secretary), INCF Secretariat

Local Organizing Committee

Paul Tiesinga (Chair, NeuroInformatics.NL)
Rembrandt Bakker (NeuroInformatics.NL)
Moniek Lijster (NIHC)
Esther van der Wel (NIHC)
Fons Verbeek (LIACS)
Joris Slob (LIACS)
Erno Vreugdenhil (Leiden UMC)
Niels Cornelisse (Neurofederatie)

GENERAL INFORMATION

VENUE

The congress will take place at Kamerligh Onnes Gebouw (KOG), Steenschuur 25, Leiden Law School, Law library, University of Leiden. For directions, see below.

Exhibits are located outside the lecture halls. Featured exhibitors are listed on page 16-17.

The poster and demo sessions will take place in the C-corridor, on the ground floor in the venue. The sessions are scheduled for Monday, Aug 25 13:00 - 15:40 and Tuesday, Aug 26 14:00 - 15:40.

The poster boards and demo stations will be marked with numbers referring to those stated in the abstract book. Materials for putting up the posters will be provided. The meeting staff will remove posters not taken down by Tuesday, August 27, at 18:00. The meeting organizers do not accept responsibility for any materials left behind.

INTERNET

Individual usernames and passwords for the WiFi will be handed out at registration.

LUNCH

Several light lunch options are available in the restaurant located inside the congress venue (price range 4-6 EUR). Coffee will be served in the exhibits area.

CONFERENCE COORDINATORS ON SITE

Rosa Cusato-Sörnäs, INCF +46 8 524 870 16

Helena Ledmyr, INCF +46 8 524 870 35

OPENING HOURS OF THE REGISTRATION DESK

Aug 25	8:00 - 17:30
Aug 26 - 27	8:30 - 18:00

PARTICIPATION, NAME TAGS

Official conference name tags will be required for admission to all conference functions. Participants who lose their name tags will have to pay a fee of 25.00 EUR to obtain a replacement tag.

SOCIAL EVENTS

The City of Leiden has invited all pre-registered participants to a Welcome Reception in City of Leiden Town Hall on August 25.

On August 26, INCF hosts a Congress Banquet at Hortus Botanicus.

TO THE VENUE

Directions from Leiden train station:

By foot: Cross the station square and keep to the right side of the road. Take the Stationsweg and then the Steenstraat and continue across the Blauwpoortsbrug bridge. On leaving the bridge, turn right and take the Prinsessekade, which will become the Korte Rapenburg. Cross the street and you are on the Rapenburg. Walk along the Rapenburg until it becomes the Steenschuur. You will find the KOG on your left hand side.

By bus: Buses stop in front of the train station. You can take buses no. 15, 16, 31, 40, 42, 187, 185, or 189. You need a bus which drives along the Breestraat. Ask the driver to let you know when you are at the bus stop in the Breestraat. Walk along the Breestraat and turn right at the end of the street. You are now on the Steenschuur. The KOG is on your right hand side.

MAP

Scan the QR code below for a local google map with the venue, hotels, transportations and social events

Congress program at a glance

Monday, Aug 25th

08:30 OPENING STATEMENT
Mary B Kennedy

08:40 WELCOME FROM THE INCF EXECUTIVE DIRECTOR
Linda Lanyon

09:00 KEYNOTE
Daniel Choquet
A nanoscale view into the dynamic of AMPA receptor organization in synapses

09:50 COFFEE BREAK, PROVIDED BY **WILEY**

10:20 WORKSHOP 1
The Neuroinformatics of neuroanatomy
Chair:
Maryann Martone
Speakers:
Trygve Leergard, Jacopo Annese, Douglas Bowden, Mike Hawrylycz

12:10 LUNCH

12:10 *PLOS Data Q&A for neuroscience researchers*. Room: TBD

13:00 POSTER AND DEMO SESSION 1

15:00 COFFEE SERVED

15:40 KEYNOTE
Michael Milham
Emerging models for biomarker identification

16:20 PRESENTATION BY FRONTIERS

16:30 KEYNOTE
Felix Schürmann
In silico neuroscience – an integrative approach

17:20 END

17:30 WELCOME RECEPTION AT THE CITY OF LEIDEN TOWN HALL

Tuesday, Aug 26th

09:00 KEYNOTE
Viktor Jirsa
The Virtual Brain: a simulator of large-scale brain network dynamics

09:50 COFFEE BREAK

10:20 WORKSHOP 2
Building the brain
Chair:
Paul Tiesinga
Speakers:
Geoff Goodhill, Tomomi Shimogori, Rodney Douglas, Nenad Sestan

12:10 LUNCH

13:00 SPECIAL SESSION
Big data in clinical and translational informatics
Chair:
Sean Hill, INCF Scientific Director
Speakers:
Yike Guo, Asla Pitkanen

14:00 POSTER AND DEMO SESSION 2

15:00 COFFEE SERVED

15:40 KEYNOTE
Dmitri Chklovskii
Can connectomics help us understand neural computation? Insights from the fly visual system

16:20 ORAL PRESENTATIONS OF SELECTED ABSTRACTS
Oscar Javier Avella Gonzalez, Anita Bandrowski, Mihail Bota, Tristan Glatard, Lior Kirsch, Camille Maumet, Birgit Plantinga, Miroslav Radojevic, Oliver Schmitt

17:50 END

18:00 BANQUET AT HORTUS BOTANICUS

Wednesday, Aug 27th

09:00 KEYNOTE
Margarita Behrens
The epigenome and brain circuit changes during postnatal development

09:50 COFFEE BREAK

10:20 PARALLEL WORKSHOPS

10:20 WORKSHOP 3
Synaptic computation
Chair:
L. Niels Cornelisse
Speakers:
Erik De Schutter, Bert Kappen, Alexander Walter, Michele Giugliano

10:20 WORKSHOP 4
Open collaboration in computational neuroscience
Chair:
Angus Silver
Speakers:
Stephen Larson, Padraig Gleeson, Rick Gerkin, Shreejoy Tripathy, Aurel A. Lazar

12:10 LUNCH

13:00 NETHERLANDS NODE SPECIAL SESSION
Population-based neuroimaging

15:10 COFFEE BREAK

15:40 NETHERLANDS NODE SPECIAL SESSION

17:00 INCF VICTORIA NODE
Ramesh Rajan
Welcome to Cairns in 2015!

17:15 CLOSING REMARKS
Jan Bjaalie, INCF Governing Board Chair

17:30 END

INCF NETHERLANDS NODE SPECIAL SYMPOSIUM

August 27, 13:00 - 17:00

Neuroinformatics of population-based neuroimaging

Chair: **Leon Kenemans**, Universiteit Utrecht

Population imaging deals with the systematic acquisition and analysis of medical imaging data in large population cohorts. The aim of population imaging is to discover and develop imaging biomarkers (objective measures of the presence and state of the disease), e.g. to predict or follow the development of disease. There is a large number of ongoing population-based (neuro)imaging studies, and a number of large new initiatives have recently been announced, for an overview see populationimaging.eu.

The goal of this workshop is to look into a number of fundamental neuroinformatics and other methodological issues that arise in setting up population studies, analyze their results and make the data available.

Not all characteristics present in the population can be statistically resolved by a single population-based study, however large it may be. Data sharing across studies is important, and Paul Tiesinga will kick-off the session by presenting the outcome of a workshop on datasharing in the neurosciences that preceded the congress and has the aim of formulating a white paper on datasharing. The next topic is MRI processing. We will cover both the harmonization of MRI acquisition protocols between participating research centers, where maximizing reproducibility across scanners is at least as important as obtaining maximum scan quality, as well as the processing of all those scans. Because of the need for high throughput, manual analyses need to be avoided and automated analysis pipelines for segmentation and biomarker extraction are required, with characterizations that allow for statistical analyses across subjects. **Christian Beckmann** will talk about such analyses in the Human Connectome Project. In addition, metadata such as (fMRI) tasks, cognitive tests and genetic data need to be standardized. Within this context, we introduce and several prominent examples of ongoing population imaging. **Alan Evans** will talk about the CBRAIN and GBRAIN platforms for distributed processing of 3D/4D brain imaging data, and **Aad van der Lugt** will speak about the Rotterdam generation R study. Legacy data is too valuable to be discarded, hence, approaches to integrate and analyze data from multiple studies are important as well. **Rembrandt Bakker** will relate his experiences of populating a database with legacy data sets and constructing a pipeline for their analysis. Finally, recent developments have led to successful prediction of the status of individual subjects based on their MRI scans. **Hugo Schnack** will present some results in this area and discuss the possibilities for their diagnostic use. To wrap up the session we end with a discussion on the requirements for future population studies.

Program: see page 9

Advisory board

Rembrandt Bakker, Radboud University, Nijmegen
Wiro Niessen, Erasmus Medical Center, Rotterdam
Hugo Schnack, University Medical Center, Utrecht
Paul Tiesinga, Radboud University, Nijmegen

NeuroInformatics•NL

National Initiative Brain & Cognition

Monday, August 25, 2014

08:30 **OPENING STATEMENT**
Mary B Kennedy, Program Committee Chair, California Institute of Technology, USA

08:40 **WELCOME**
Linda Lanyon, INCF Executive Director

09:00 **KEYNOTE** ▶ *A nanoscale view into the dynamic of AMPA receptor organization in synapses*
Daniel Choquet, University of Bordeaux, France

09:50 Coffee break**, provided by** WILEY

10:20 **WORKSHOP 1** ▶ *The Neuroinformatics of neuroanatomy*
Chair: **Maryann Martone**, University of California San Diego, USA
10:25 **Trygve Leergard**, University of Oslo, Norway
10:50 **Jacopo Annese**, University of California , USA
11:15 **Douglas Bowden**, University of Washington, USA
11:40 **Mike Hawrylycz,** Allen Institute for Brain Science, USA

12:10 Lunch

12:10 PLOS Data Q&A for neuroscience researchers. Room: TBD

13:00 **POSTER AND DEMO SESSION 1**

15:00 Coffee served

15:40 **KEYNOTE** ▶ *The Functional Connectomes Project*
Michael Milham, Child Mind Institute, USA

16:20 Presentation by frontiers

16:30 **KEYNOTE** ▶ *In silico neuroscience – an integrative approach*
Felix Schürmann, École Polytechnique Fédérale de Lausanne, Switzerland

17:20 End

17:30 Welcome Reception at the City of Leiden Town Hall

Tuesday, August 26, 2014

09:00 **KEYNOTE** ▶ *The Virtual Brain: a simulator of large-scale brain network dynamics*
Viktor Jirsa, Inserm at Aix-Marseille University, France

09:50 Coffee break

10:20 **WORKSHOP 2** ▶ *Building the brain*
Chair: **Paul Tiesinga**, Radboud University Nijmegen, The Netherlands

10:25 **Geoff Goodhill**, University of Queensland, Australia
10:50 **Tomomi Shimogori**, RIKEN Brain Science Institute, Japan
11:15 **Rodney Douglas**, University of Zurich, Switzerland
11:40 **Nenad Sestan**, Yale University, USA

12:10 Lunch

13:00 **SPECIAL SESSION** ▶ *Big data in clinical and translational informatics*
Chair: **Sean Hill**, INCF Scientific Director

13:10 **Yike Guo**, Imperial College, UK
13:30 **Asla Pitkanen**, University of Eastern Finland, Finland

14:00 **POSTER AND DEMO SESSION 2**

15:00 Coffee served

15:40 **KEYNOTE** ▶ *Can connectomics help us understand neural computation? Insights from the fly visual system*
Dmitri (Mitya) Chklovskii, Howard Hughes Medical Institute Janelia Farms, USA

16:20 **ORAL PRESENTATIONS OF SELECTED ABSTRACTS**
Chair: **Mary B Kennedy,** California Institute of Technology, USA

Oscar Javier Avella Gonzalez, VU Amsterdam, Netherlands
Anita Bandrowski, The University of California, San Diego, USA
Mihail Bota, University of Southern California, USA
Tristan Glatard, McGill University, Canada and University of Lyon, France
Lior Kirsch, Bar Ilan University, Israel
Camille Maumet, University of Warwick, United Kingdom
Birgit Plantinga, Eindhoven University of Technology, Maastricht and University Medical Center, Netherlands
Miroslav Radojevic, Erasmus MC, Netherlands
Oliver Schmitt, University of Rostock, Germany

17:50 End

18:00 Banquet at Hortus Botanicus

Wednesday, August 27, 2014

09:00 **KEYNOTE** ▶ *The epigenome and brain circuit changes during postnatal development*
Margarita Behrens, Salk Institute, USA

09:50 Coffee break

10:20 **PARALLEL WORKSHOPS**

10:20 **WORKSHOP 3** ▶ **Synaptic computation workshop**
Chair: **L. Niels Cornelisse,** University Amsterdam, The Netherlands

10:25 **Erik De Schutter,** Okinawa Institute of Science and Technology, Japan

10:50 **Bert Kappen,** Radboud University Nijmegen, The Netherlands

11:15 **Alexander Walter,** Charité Cross Over, Germany

11:40 **Michele Giugliano**, University of Antwerpen & Neuro-Electronics Research Flanders, Belgium

10:20 **WORKSHOP 4** ▶ *Open collaboration in computational neuroscience*
Chair: **Angus Silver**, University College London, UK

10:25 **Stephen Larson**, MetaCell, LLC, USA

10:45 **Padraig Gleeson**, University College London, UK

11:05 **Rick Gerkin**, Carnegie Mellon University, USA

11:25 **Shreejoy Tripathy**, University of British Columbia, Canada

11:45 **Aurel A. Lazar**, Columbia University

12:10 Lunch

13:00 **INCF NETHERLANDS NODE SPECIAL SYMPOSIUM**
Chair: **Leon Kenemans**, Utrecht University, The Netherlands

13:00 **Paul Tiesinga**, Radboud University Nijmegen, The Netherlands
Outcome of the workshop "Share and Flourish, new standards for data sharing in the neurosciences"

13:20 **Christian Beckmann**, Radboud University Nijmegen, The Netherlands
Automated analysis methods for fMRI datasets and their role in the Human Connectome Project

13:50 **Alan Evans**, McGill University Health Centre, Canada
Big data platforms for distributed processing of 3D/4D brain imaging data

14:30 **Aad van der Lugt**, Erasmus Medical Center Rotterdam, The Netherlands
Population Imaging, the Rotterdam experience

Wednesday, August 27, 2014 (cont.)

15:10 **Coffee break**

15:30 **Rembrandt Bakker**, Radboud University Nijmegen, The Netherlands
Neuroimaging data integration across scanners and protocols: the Biomarker Boosting project

15:50 **Hugo Schnack**, Utrecht University, The Netherlands
Translating neuroimaging findings from research into clinical practice

16:20 Discussion moderated by **Leon Kenemans**, Utrecht University, The Netherlands
Requirements for future population studies

16:45 **WELCOME TO CAIRNS IN 2015!**
Ramesh Rajan, INCF Australia Node

17:00 **CLOSING REMARKS**
Jan G Bjaalie, INCF Governing Board Chair

17:15 **End**

INCF looks forward to welcoming you to the 8th Neuroinformatics Congress in Cairns, Australia, on August 20-22, 2015!

www.neuroinformatics2015.org

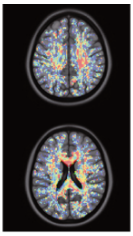
incf | Neuro Informatics 2015

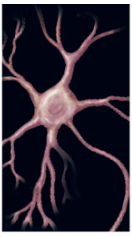
Save the date!

Neuroinformatics 2015 comes to Cairns, Australia, home of the Great Barrier Reef and the Daintree Rainforest!

Join us on 20-22 August for:

- Keynotes from top scientists in the neuroinformatics field
- Workshops and poster/demo sessions
- A one-day special session organized by the INCF Australia Node:
  - Multi-scale integrative neuroscience research in attention circuits in the brain
  - Australian National Imaging Facility - technical developments and applications in the imaging grid




Welcome to Cairns, Australia!

20-22 August 2015

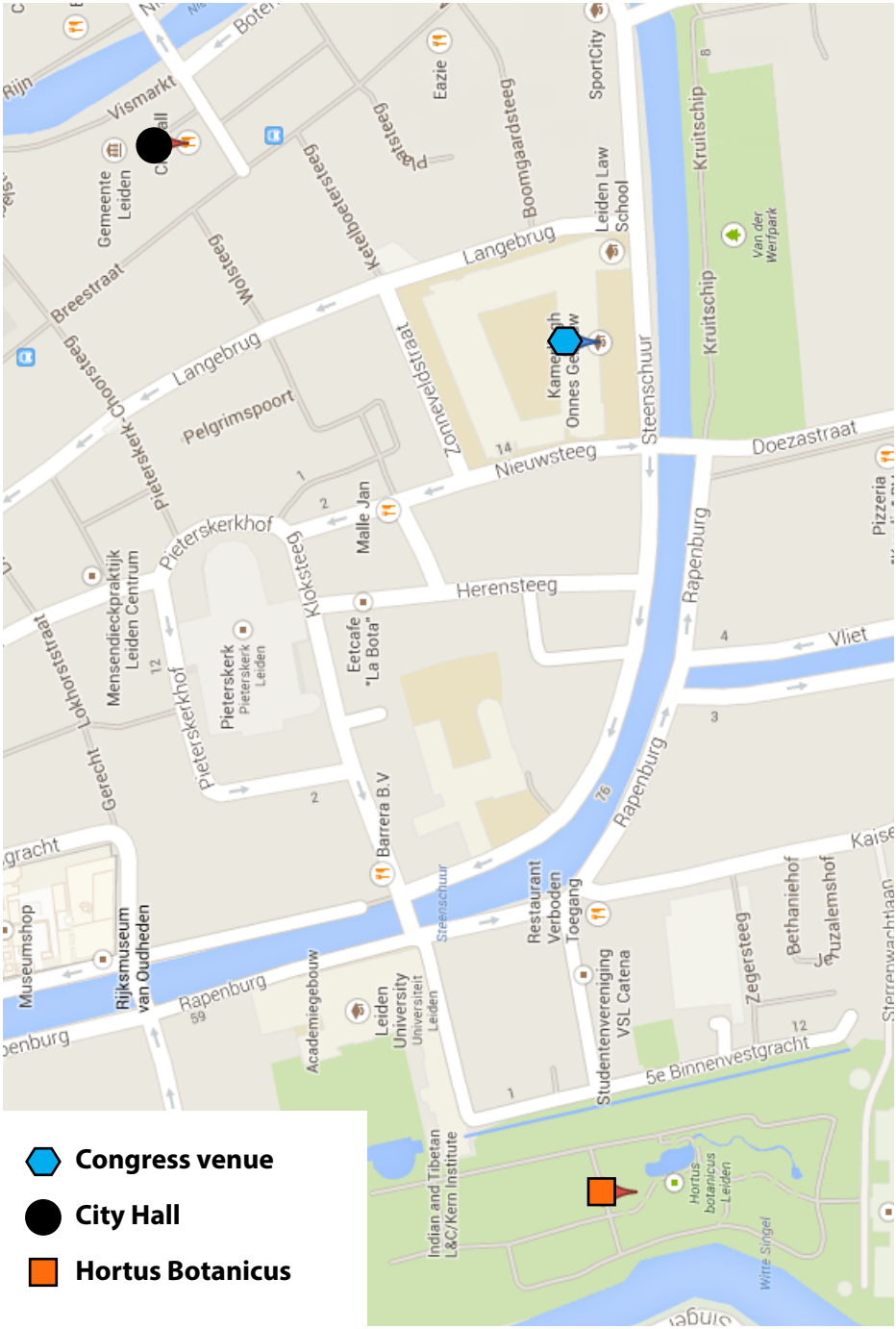
The 8th INCF Congress on Neuroinformatics is co-organized by the INCF Australia Node, hosted by the ARC Centre of Excellence for Integrative Brain Function.

The Congress is an official satellite meeting of the 25th meeting of the International Society for Neurochemistry in Cairns, Australia, on August 23-27.

Australian Research Council
Centre of Excellence for Integrative Brain Function

ISN International Society for Neurochemistry

neuroinformatics2015.org


Congress venue
City Hall
Hortus Botanicus
Rijn
Vismarkt
Gemeente Leiden
Breestraat
Wolsteeg
Chocolatesteeg
Pieterskerkhof
Pelgrimspoort
Langebrug
Plaatsteeg
Eazie
Boomgaardsteeg
SportCity
Leiden Law School
Kruitschip
Van der Werfpark
Zonnevelderstraat
Steenschuur
Nieuwsteeg
Doezastraat
Pizzeria
Malle Jan
Herensteeg
Klooksteeg
Eetcafe "La Bota"
Rapenburg
Vliet
Lokhorststraat
Mensendieckpraktijk Leiden Centrum
Pieterskerk
Gerecht
Barrera B.V
Museumshop
Rijksmuseum van Oudheden
Academiegebouw
Leiden University
Universiteit Leiden
Restaurant Verboden Toegang
Studentenvereniging VSL Catena
Zegersteeg
Bethaniehof
Jeruzalemshof
5e Binnenvestgracht
Indian and Tibetan L&C/Kern Institute
Hortus botanicus Leiden
Witte Singel

Ground floor
Green: Registration
Red: Posters
Orange: Demos, hackathon

First floor
Blue: Exhibitions
Yellow: Lecture halls
Grey: Coffee & lunch cafeteria

Hackathon
Leiden 2014

INCF Hackathon Leiden 2014

Join us for this great opportunity for open source neuroinformatics developers to meet and work collaboratively!

Attendance is free for congress participants.

Hack room open times:

25 August: 12:10 - 16:30
26 August: 12:10 - 15:40
27 August: 09:50 - 13:00

Room:

C004

Contact:
roman@incf.org
lotta@incf.org

More information and sign-up on the hackathon wiki: bit.ly/X66ali

The INCF Hackathon is sponsored by Ovation - a Physion product.
Hackathon participants will receive 3 months of Ovation ($300 value per person).

Ovation™
A Physion Product

Meet INCF!

Are you coming to Neuroscience 2014? Make sure to stop by INCF in booth **#3517**!

We are hosting neuroinformatics demos as usual, and plans for a social are underway. Stay tuned for the demo schedule, and date & time for the social!

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Abstracts

FIND THE COMPLETE ABSTRACTS ONLINE

Scan the QR code to access

- abstract book
- mobile app
- abstract listing on Frontiers' website

ABSTRACT INFORMATION

The abstract list is sorted in alphabetical order by the corresponding author's last name.

P Poster
OP Poster which will also be presented in the oral session at 16:20 on Tuesday, August 26.
OD Demo which will also be presented in the oral session at 16:20 on Tuesday, August 26.
D Demo

Session 1

Monday, August 25 13:00 - 15:40
Abstracts with even numbers will be presented

Session 2

Tuesday, August 26 14:00 - 15:40
Abstracts with uneven numbers will be presented

All abstract presenters have been asked to be available during both sessions if possible.

Corresponding author	Abstract title	Abstract number
Adebimpe, Azeez	Altered brain functional connectivity in patients with benign childhood epilepsy	P56
Ahmed, Zeeshan	Ant-app-database towards neural, behavioral research on deserts ants and approximate solar estimations	D09
Asai, Yoshiyuki	Interoperability between multilevel modeling platform PhysioDesigner and databases in Physiome.jp and Dynamic Brain Platform through Garuda platform	P45
Avella Gonzalez, Oscar Javier	Inter-network interactions: impact of connections between oscillatory neuronal networks on oscillation frequency and pattern	OP03
Bakker, Max	Efficient generation of large-scale neural connectivity matrices using machine-learning techniques	P49
Bakker, Rembrandt	Do gold standards remain gold standards when compiling a large number of published tract-tracing studies into a connectivity database?	P52
Bakker, Rembrandt	eScience Infrastructure for running validated image analysis pipelines: how to best compare MRI scans from different medical centers	D19
Bandrowski, Anita	Identifying research resources in biomedical literature should be easy	OP04
Battaglia, Demian	First neuronal connectomics challenge: from imaging to connectivity	P05
Beul, Sarah	Cortical cytoarchitecture and distance predict corticocortical connectivity	P17
Bjaalie, Jan	Workflow for integration and analysis of histological data in rodent brain Waxholm Space	P19
Bohland, Jason	Classification of cortical areas using gene expression profiles	P41
Boline, Jyl	Growing the INCF Digital Atlasing Infrastructure	P20
Bosman, Conrado	Low-frequency phase-locking of selective human medial temporal lobe neurons to the local field potential of contralateral lateral prefrontal cortex during visual stimulation	P24
Bota, Mihail	The rat cerebral cortex macroconnectome	OP09
Chaitanya Chintaluri, Hanuma	Neuroscience Simulation Data Format (NSDF) : HDF-based format for large simulation datasets	P34
Chavas, Joël	A Docker image for spiking neural network simulators	D05
Chiang, Ann-Shyn	A wiring diagram of protocerebral bridge for visual information processing in the drosophila brain	P30
Davison, Andrew	Model validation using the Mozaik framework	P03
de Bono, Bernard	ApiNATOMY: the generation of interactive circuitboard schematics of multiscale neuroscientific knowledge	P36
Denker, Michael	INCF Workshop Report: New perspectives on workflows and data management for the analysis of electrophysiological data	P27
Djurfeldt, Mikael	Methods for co-simulation of multi-scale models	P50
Djurfeldt, Mikael	MUSIC---a tool for co-simulation of neuronal network models. Current status and future development.	P51
Fredo, Jac	Segmentation and analysis of sub-cortical regions of autistic MR brain images using Gaussian distribution model based reaction diffusion multi-phase level sets and geometric feature	P59
Georgopoulos, Apostolos	Adjusted Brain Measure (ABM): A simple, relative measure of brain status	P31

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Glatard, Tristan	Interoperability between the CBRAIN and VIP web platforms for neuroimage analysis	OP06
Grethe, Jeffrey	SciCrunch: A cooperative and collaborative data and resource discovery platform for scientific communities	D11
Güçlü, Umut	A two-stage approach to estimating voxel-specific encoding models improves prediction of hemodynamic responses to natural images	P64
Haselgrove, Christian	Lessons from a simple tool for neuroimaging data sharing	D17
Hess, Andreas	A new automatic multi seed analysis for fMRI resting state data in animal model: Comparison to ICA	P54
Hyttinen, Jari	Combining spiking neuronal network model with presynaptic and astrocyte interface models	P11
Jeanson, Francis	Brain-CODE: A large-scale neuroinformatics platform for deep and broad data	P43
Kamitani, Yukiyasu	The BrainLiner Platform for sharing and searching time-aligned neurophysiological data	D12
Karthick, PA	Analysis of muscle fatigue progression in biceps brachii using surface electromyography signals and wavelet packet entropies	P26
Keator, David	Developing and using the data models for neuroimaging: the NIDASH Working Group	P33
Kennedy, David	Neuroimaging resources, data and computation: NITRC Revisited	D18
Kirsch, Lior	Human areal expression of most genes is governed by regionalization	OP05
Klein, Arno	Detailed shape analysis of brains with Alzheimer's disease	P55
Lazar, Aurel	A parallel programming model of local processing units in the fruit fly brain	P46
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Le Franc, Yann	Describing neurophysiology data and metadata with OEN, the Ontology for Experimental Neurophysiology	P28
Le Franc, Yann	Mobile metadata: bringing Neuroinformatics tools to the bench	D07
Leergaard, Trygve	Registration of serial two-photon data to rodent brain Waxholm Space	P22
Lehtimäki, Mikko	Usability and functionality of NeuroML description language evaluated using three distinct spiking neuron models	P37
Lenk, Kerstin	Simulation of matured in vitro human neuronal cell networks	P13
Lenk, Kerstin	The effect of longer range connections on neuronal network dynamics	P14
Linne, Marja-Leena	Usability and functionality of NeuroML description language evaluated using three distinct spiking neuron models	P37
Linssen, Charl	Can we hear the shape of a neuron? Cell type classification in high density multi-electrode recordings	P23
Lo, Chung-Chuan	The Flysim project – persistent simulation and real-time visualization of fruit fly whole-brain spiking neural network model	D15

Reference index for abstracts

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Schwartz, Yannick	Mapping cognitive ontologies to and from the brain	P66
Siegmund, Janet	Understanding Programmers' Brains with fMRI	P60
Smith, Leslie	The CARMEN data sharing portal project: what have we learned?	P44
Soria-Frisch, Aureli	Advanced Machine Learning for classification of EEG traits as Parkinson's biomarker	P01
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