CNS
Organization For Computational Neurosciences

Scenes from CNS*2021 Online

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https://www.linkedin.com/company/organization-for-computational-neurosciences/

Contact us if you have comments or information to include in the newsletter newsletter@cnsorg.org

Welcome words from our future vice-president

Thomas Nowotny, University of Sussex, UK

Having completed my term as the Program Chair at the end of 2020 I am excited to return to the board of directors of OCNS as the vice-president and secretary from January 2022. From the many years I have served in different roles within the leadership of OCNS I have come to appreciate what a great organisation it truly is – open to everyone, friendly and kind, as well as equitable and fair. I am much looking forward to again serve this community and do my best to further improve our organisation.

For the immediate future I can see a number of challenges that the organisation faces and I have set myself some goals for the new role.
One challenge is the continuing instability due to the COVID pandemic that we need to navigate each personally and as an organisation. I very much hope that we will be able to have an in-person meeting in Australia next year and will do what I can to make it happen. Another challenge is to stay relevant with our goals and our practices in a rapidly changing scientific environment, including, for instance, the areas of science we cover, our meeting format and the format of our meeting publications.
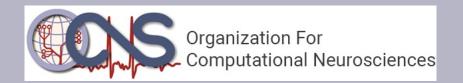
As for personal goals in the new role, I hope to uphold the high quality of communications with members, help to further improve engagement of members with the organisation and to contribute to and support the board in all difficult decisions that we are certain to face.
I am much looking forward to working with you all again!

Thomas Nowotny,
Vice-President Elect

Organization For
Computational Neurosciences

E-mascot competition for CNS*2021 Online

The CNS meeting needed a mascot. As last year, we decided, at the instigation of Anca Doloc-Mihu, to organize an e-mascot competition. The Web Organizing Committee (cf page 6) voted the best image to use on Social Media for the CNS*2021 online event:

1st Erin Munro Krull, Ripon College, Sun Prairie Town, Wisconsin, United States

2nd MargaritaZaleshina, Moscow Institute of Physics and Technology, Russia

2nd ex aequo Davor Curic, University of Calgary, Canada

Congratulations!

The winner was rewarded with $100.

E-mascot competion winner

Erin Munro Krull
from Ripon College, USA

2nd ex-aequo

Margarita Zaleshina
from Moscow Institute of Physics and
Technology, Russia

Davor Curic
from University of Calgary, Canada

Social media at CNS*2021

Renaud Jolivet, Maastricht University, The Netherlands
CNS*2021 Social Media Chair

I am Dr. Renaud B. Jolivet, Professor of Neural Engineering and Computation at Maastricht University in The Netherlands, where I just moved after having been a junior group leader in Geneva, Switzerland. Since 2019, I am the Social Media Chair at OCNS. This year, I am being shadowed by Dr. Eirini Mavritsaki, Professor of Cognitive Psychology at Birmingham City University, who will fully take over my role starting next year. During this first term, one of the activities I focussed on was to assume control of OCNS' page on LinkedIn and grow a following on that platform. Since 2019, we went from no presence on LinkedIn to 331 followers. At the time of writing this column, we are mostly active on 3 social media platforms and currently have the following followers' counts:

- LinkedIn: 331 followers
- Twitter: 2800 followers
- Facebook: 4738 followers
Total: 7869

We occasionally receive requests to advertise job opportunities via these channels. Do not hesitate to contact us for this purpose. We are always happy to disseminate news that are relevant and important to our online community.

Since last year and like so many other organizations, OCNS had to adapt its regular activities due to the pandemic. As a consequence, our traditional yearly meeting had to be moved online twice, in 2020 and 2021, and we had to adapt a more aggressive communication strategy on social media to engage our community. For the yearly meetings, this was spearheaded by Anca Doloc-Mihu, Assistant Professor at Georgia Gwinnett College, with support from volunteers, Dr. Mavritsaki and myself. The attendance map below highlights the reach and engagement we managed to create for the most recent #CNS2021Online meeting. All the credit for this achievement must go to Dr. Doloc-Mihu, who was tireless in creating online engagement for this year's conference.

Next year, we hope to be able to return to a physical meeting in July in Melbourne, Australia. We will maintain our efforts to inform you online about this and future events, no matter their format. We will also seek to keep you informed about developments in our field, in particular when it comes to standards and global governance, as we develop closer ties with other organizations like INCF and the International Brain Initiative.

Map

Where in the world are people joining from?

Insight from a young member of the Web Organizing Committee (WOC)

Esin Karahan, Cardiff University Brain Imaging Centre (CUBRIC), UK

Hi, I am Esin Karahan, I am a postdoctoral research fellow in Cardiff University Brain Imaging Centre (CUBRIC) in the UK. I am interested in finding the neural correlates of individual differences. One reason for inter-individual differences is variations in brain structural connections. For example, we have shown that differences in reaction time is reflected in differences in neurite density in corticospinal tract (Karahan et al, J.NeuroSci, 2019). In our recent work we have shown that deviations between individuals are not homogeneous across the brain and are reflected by neuroimaging modalities at varying degrees: brain areas encoding sensory and visual information differ less whereas areas that belong to association networks differ the most between individuals (Karahan et al, 2021). Although brain morphology is important, its predictive power is less in explaining the variance of complicated behavioral measures such as intelligence or task performance. Another individual specific feature of the human brain is the consistent functional organizations during rest. In general, my research goal is to relate macroscale measures to microstructural properties of the brain by using MRI methods. By this way, it would be possible as well to investigate how demographic variables such as age and gender affects inter-individual variability.

CNS*2021 meeting was my first CNS meeting. I wanted to be part of the organizing committee the first time I received an email for a call to be a member of the committee as I thought this would be a valuable opportunity to see the organizational side of the CNS. Being part of WOC with Dr. Anca Doloc-Mihu chairing the general committee and Dr. Cengiz Gunay heading the IT team was a brilliant experience for me. I enjoyed the friendly and welcoming setting of the committee. I met many computational neuroscientists around the world. Though we foresaw some of the problems we are going to encounter and we had some training on online meeting administration, we still encountered many problems during the conference. Nonetheless with a very friendly OCNS society, none of the problems interrupted the high quality scientific content and we had memorable moments from the meeting.

With keynote speakers, I had the chance to follow timely, cutting edge research and adopt a more philosophical and wider perspective. I found the program nicely crafted for a wide audience of the computational neuroscience research field. Oral presentations were masterly organized and gave fantastic opportunities to hear the most interesting talks.

Since I attended the conference from a European time zone, I could not follow all poster sessions, but at the ones I had attended I enjoyed the relaxed and friendly environment of exchanging and learning new ideas. Tutorials before the conference gave us the opportunity to learn more about interesting topics with introductory material. For example, I attended the excellent Recurrent Neural Network tutorial from Dr. Cecilia Jarne who explained in great detail both the theory and applications in neuroscience research.

In summary, from organization to undertaking of OCNS, it was a fantastic and inspiring experience for me. It was an assurance for me to think that not only performing but also discussing science is fun even if it is virtual!

We all thank the CNS*2021 WOC for the wonderful organization:

Board members:

    Anca Doloc-Mihu (WOC Chair, Tutorials Chair, social media, eMascot, meeting schedule)

    Leonid Rubchinsky (Treasurer, platform selection, support team)

    Jorge Mejias (Workshop Chair, support team)

1. **Web team - web platforms, guidelines, training, presentations support, helpy, misc.**

   Cengiz Gunay (WOC Webmaster) - Assistant Professor, Georgia Gwinnett College, Atlanta, USA

   Nikola Jajcay - Postdoc, Technische Universität Berlin, Germany

   Hussain Ather - PhD student, University of Toronto, Canada

   Shirin Dora - Lecturer, Ulster University, UK

   Wei Qin - PhD student, University of Melbourne, Melbourne, Australia

2. **General organization team - support for live presentations, posters schedule, guidelines, misc**

   Esin Karahan - Research Associate, CUBRIC, Cardiff, UK

   Evie Malaia - Associate Professor, University of Alabama, USA

   Cecilia Jarne - Assistant Professor, Universidad Nacional de Quilmes, Argentina

   Marianna Semprini - Clinical Research Team Manager, IIT-INAIL Rehab Technologies Lab, Genova, Italy

3. **Conference support team - party, guidelines, support, misc.**

   Carlo Combista - MS student, Tel Aviv University, Israel

   Janaki Raghavan - PhD student, University of Madras, India

   Zach Mobille - MS student, Illinois State University, USA

   Paulo Ricardo Protachevicz - Postdoc, University of Sao Paulo, Brazil

   Natalí Guisande - PhD student, National University of La Plata, Argentina

   Pawan Kumar Thapaliya - PhD student, University of South Florida, USA

   Monserrat Pallares Di Nunzio - MS student, National University of La Plata, Argentina

CNS*2022

Melbourne

31st Annual Computational Neuroscience Meeting

July 16-20, 2022

Local Organizers:

Anthony N. Burkitt (Chair), The University of Melbourne, Australia

Mark Cook, The University of Melbourne, Australia

Alex Fornito, Turner Institute for Brain and Mental Health, Monash University, Australia David B. Grayden (Treasurer), The University of Melbourne, Australia

Tatiana Kameneva, Swinburne University, Melbourne, Australia

 Levin Kuhlmann, Monash University, Australia

Hamish Meffin, The University of Melbourne, Australia

We are excited to be able to welcome you to Melbourne, Australia, for CNS*2022! This is a chance to reconnect with old friends and colleagues, and to meet people who you may have only interacted with at the previous two CNS meetings online. It is also a chance to see some of the unique landscapes and animals that make Australia so distinctive and fascinating.

The main CNS*2022 meeting, as well as the tutorials and workshops, will be held at the Melbourne Convention and Exhibition Centre (MCEC), which is close to the heart of the city and located beside Melbourne's Yarra River. The newly refurbished MCEC offers excellent conference facilities with a range of inviting spaces that represent best practice, innovation and sustainability.

Melbourne has seven Universities, many of them with international profiles in neuroscience. The University of Melbourne and Monash University are the two leading institutions in Melbourne with outstanding reputations for excellence in research and

There are many neuroscience organizations embedded in or associated with the medical precinct of these universities: The University of Melbourne and Monash University are the hub of medical knowledge precincts comprising eight hospitals and many research institutes, including Melbourne Neuroscience Institute, The Florey Institute of Neuroscience and Mental Health, The Melbourne Brain Centre, The Bionics Institute, The Walter and Eliza Hall Institute of Medical Research (WEHI), Bio21 Institute, and St. Vincent's Institute of Medical Research. Melbourne is particularly strong is many areas of computational neuroscience, including computational models of epilepsy, bionics and mathematical modelling of electrical stimulation of neurons, multi-scale brain network modelling, and imaging and brain network connectivity. We encourage you to contact colleagues in your area of research who are working at these institutions, or indeed other universities in Australia, and arrange to visit them when you come to Melbourne to attend CNS*2022.

Melbourne has consistently been rated amongst the world's most livable cities: it is highly regarded as a safe, welcoming, and inviting city that offers a diverse and vibrant range of social, culinary and artistic activities. With its cosmopolitan feel and café culture, events and eclectic laneways, Melbourne's attractions are easily accessible via foot and with an integrated, easy-to-use public transport system of trains, trams and buses.

Nearby Melbourne there are many outstanding attractions. The Mornington Peninsula offers a vibrant diversity of galleries, local wineries and seaside villages to explore, as well as the opportunity to visit the Phillip Island Nature Parks, the home of the largest penguin colonies in Australia, where you can watch the little penguins waddle up the beach at sunset at every night. Less than an hour from Melbourne is the Yarra Valley, one of Australia's premier wine growing areas, with an abundance of cellar doors where you can sample the local wines or take an early-morning hot air balloon ride over the region followed by a champagne breakfast.

Further afield, the Great Barrier Reef on Queensland's northern coast is a World Heritage area and the world's largest coral reef system, containing some 3,000 separate coral reefs and more than 900 islands. In the heart of the continent is Uluru, set in a spectacular desert landscape.

We look forward to welcoming you to CNS*2022 in Melbourne. Be sure the watch out for further details, both in OCNS emails and on the website, where details of the program will be posted over the coming months. Information about accommodation will also be provided, as well as any requirements and recommendations concerning covid-19 and your health that is connected to your travel to Australia, as these will likely change and evolve over the coming months leading up to the meeting.

General announcements

Call for BrainBee workgroup on comp neuro and AI materials development:

Do you like explaining your field to a broad audience? In view of the major social impact of computational neuroscience and AI, from self-driving cars to the self-learning technologies that are used by many organisations to facial recognition, the International BrainBee together with its Dutch regional partner (Hersenolympiade Nederland Foundation) believe it is of the utmost importance to bring the general public - and students in particular - into contact with the fascinating world of computational neuroscience and AI. For this, new materials need to be developed! So please help us and inform the next generation about computational neuroscience and AI!

For more information and how to join the taskforce, please look here:

https://hersenolympiade.nl/en/werkgroep-computational-neuroscience-en-ai/

Special Interest GROUPS (SIGs) - News and call:

SIGSs were launched with a special call one year ago. The idea was to gather people and research groups around common interests so that they can share their experiences, tools, data, or initiate collaboration more easily. Two main SIGs have emerged:

• The Software SIG: since its inception at the end of CNS*2020, the SIG has continued to grow steadily. With ~20 active members, many of whom are involved in the development of software commonly used in computational neuroscience, the group is now shared between the INCF and OCNS as the Software Working Group (WG). The WG now organises regular online meetings.

• The Clinical Computational Neuroscience SIG: a nascent SIG for people interested in using computational neurosciences for clinical applications. A special workshop was organized during the CNS*21 online.

We still encourage you to join the discussion and express your interest in these on the respective Neurostars topics, or even to suggest other SIGs that you may be interested in forming and working on: https://neurostars.org/t/cns-2020-ocns-members-meeting/15273/12.

Looking for new OCNS directors:

Board members are rotating, we are now looking for applications to elect 4 new board members with the following roles (starting in january 2022):

- workshop assistant
- member approval assistant
- tutorial assistant
- sponsorship assistant
- newsletter assistant

A call for applications will soon be sent by email on the OCNS mailing-list. Please, apply! We will be happy to have you on board.

On behalf of the OCNS, the Newsletter contributors wish you much success with your research and training, and we look forward to seeing you in Melbourne at CNS*2022 !