2017

I MEXICAN SYMPOSIUM ON NIRS NEUROIMAGING (MEXNIRS)



Maria Angela Franceschini Felipe Orihuela-Espina Cholula, October 20 and 21, 2017

Welcome letter

Dear Participant,

It is my great pleasure to welcome you to the 1st MexNIRS symposium in Cholula. This is the first fNIRS conference held in Mexico and the first dedicated to global NIRS research. The aim of this meeting is to promote the use of near-infrared spectroscopy and imaging as practical tools for neurological assessment in resource-poor settings. Following in the footsteps of the Society for functional Near Infrared Spectroscopy (SfNIRS), the program brings together an outstanding and diverse group of scientists working on technology development, data analysis methods, and neuroscience and clinical applications. It includes scientists from Australia, Europe, and North and South America, and highlights posters from our colleagues in industry who share our interest in promoting NIRS technology.

Thanks to the exceptional work of the local chairs and the generosity of our sponsors, we have been able to invite 13 speakers. Dr. Clare Elwell, University College London (UCL), UK, will deliver the opening keynote lecture, sharing first-hand insights from her experience in the field. Additional invited speakers on Global fNIRS applications include Jafet Arrieta, Harvard Chan School of Public Health, USA; Kaja Jasinska, University of Delaware, USA; Nasser Kashou, Wright State University, USA; and John Spencer, University of East Anglia, UK. Discussions about the latest advances in technology, methods, and other applications will be presented by Joe Culver, Washington University in St. Louis, USA; Turgut Durduran, The Institute of Photonic Sciences, Spain; Frédéric Lesage, Polytechnique Montreal, Canada; Rickson Coelho Mesquita, University of Campinas, Brazil; Ilias Tachtsidis, University College London, UK; and Arjun Yodh, University of Pennsylvania, USA. Dr. David Boas, Boston University, USA, will deliver the closing keynote lecture presenting his vision for the future of fNIRS.

In addition, we have been able to support travel expenses of six young researchers, by providing six travel awards of \$250 USD plus registration each.

Selected oral and poster presentations will complete the program. For this I am very grateful to the members of the Program Committee, who have contributed to the selection of discussion topics. With this outstanding program, this conference is poised to provide excellent opportunities for the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.

This symposium is only possible through the efforts of the local committee and the INAOE volunteers. In particular, the chairs, Felipe Orihuela-Espina, Carlos Treviño-Palacios, and Javier Herrera-Vega have spent countless hours organizing the meeting down to the smallest detail, and providing assistance to everyone well beyond common standards. Thank you!

I hope you have a successful conference, learn about great science, and enjoy this beautiful city.

Have a nice time in Cholula.

Maria Angela Franceschini

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Sponsors

The symposium is being funded by the Mexican Research Council (CONACYT) through grants F0003-2017-01-279515, CB-2014-01-237251 and CB-2011-169558 and further complemented by Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE) through internal funding.



Meeting endorsed by the The Society for functional near-infrared spectroscopy (SfNIRS)



Gold

• Dip. Fed. Ana Leticia Carrera Hernández



Silver



Bronze





Contact

If you have any questions or experience any issue while you are attending the symposium, please use one of the following contact methods:

- e-mail: <u>mexnirs@inaoep.mx</u>
- Phone: (222) 266 3100 Ext 7071 (Security)
 - Please consider that the security guards may not speak English.
- Talk to any members of the local team.

For urgent matters (health or safety related issues) contact one of the local chairs or local authorities:

- Dr. Felipe Orihuela Espina: (222) 185 1285
- Mr. Javier Herrera Vega: (222) 191 3727
- Police San Pedro Cholula: (222) 261 6187
- Red Cross Cholula: (222) 247 8501
- Emergencies: 066

For any of the above telephone numbers (except emergencies), please start with:

- If calling from a mobile phone registered abroad: 00521
- If calling from a mobile phone registered in the state of Puebla: 045
- If calling from a mobile phone registered in any other Mexican state: 044

Committee

Chairs

- Prof. Maria Angela Franceschini (Harvard Medical School, USA)
- Dr. Felipe Orihuela-Espina (INAOE, Mexico)

Local Chairs

- Dr. Carlos Treviño-Palacios (INAOE, Mexico)
- Mr. Javier Herrera-Vega (INAOE, Mexico)

Program committee

- Prof. Mamadou Diop (Western University, Canada)
- Prof. Theodore J. Huppert (University of Pittsburgh, USA)
- Dr. Sarah Lloyd-Fox (Birkbeck College, University of London, UK)
- Prof. Banu Onaral (Drexel University, USA)
- Dr. Katherine Perdue (Boston Children's Hospital, USA)
- Prof. Luca Pollonini (University of Houston, USA)
- Prof. Martin Wolf (ETH Zürich, Switzerland)

Logistics and clerical staff

Laura Camacho, Gorgonio Cerón, Brenda Cervantes, Silvia Hernández Moreno, Ángeles López, Gabriela López and Norma Tecampo.

Volunteers

Ángel Arias, Shender María Ávila Sansores, Andrea Burgos Madrigal, Arlem Aleida Castillo Ávila, Teresa Cerdá, Bibiana Cuervo Soto, Viviana del Rocío Hernández Castañón, Samuel A. Montero Hernández, Patrick Heyer Wollenberg, Jesús Salvador García Salinas, Eduardo Morales Vargas, Hernán Ojeda, Pedro Quistian and Vanessa Yelín Ramírez Sampayo.

Program

Friday, October 20th

| Time | Talk | | |
|---|---|--|--|
| 08:00 | Registration | | |
| 08:30 | Opening (Session chair: Felipe Orihuela-Espina) | | |
| 08:40 | (Opening keynote) Clare Elwell , University College London (UCL), United Kingdom, <i>The BRIGHT</i> Project - Brain Imaging for Global Health | | |
| | Session: Global NIRS I (Session chair: Felipe Orihuela-Espina) | | |
| 09:40 | (Invited keynote) Nasser Kashou , Wright State University, United States, <i>The Potential of Global</i> NIRS in Resource Limited Environments | | |
| 10:10 | Coffee | | |
| | Session: Global NIRS I (cont.) | | |
| 10:30 | (Invited keynote) Jafet Arrieta , Harvard Chan Shoool of Public Health, United States, <i>Global health challenges in Mexico and Latin America: Opportunities for using innovative technologies to address global health issues</i> | | |
| 11:00 | Katherine Perdue, Hannah Behrendt, Swapna Kumar, Alissa Westerlund, Shahria H. Kakon, Rashidul Haque, William A. Petri, Charles A. Nelson, Boston Children's Hospital, Boston, MA, USA, <i>Statistical</i> <i>learning differences in stunted and non-stunted Bangladeshi toddlers</i> | | |
| 11:15 | Maria Angela Franceschini, Pei-Yi Lin, Raimundo, Carlos Dacona, Salima Taylor, Katherine Hagen, Parya Farzam, Amy Krauss, Parisa Frazam, Augusto Braima de Sa and Susan Roberts Massachusetts General Hospital, Charlestown, MA, USA, <i>NIRS-DCS to assess cognitive performances improvements</i> <i>with treatment of malnutrition in rural Africa children</i> | | |
| Session: Instrumentation (Session chair: Arjun Yodh) | | | |
| 11:30 | (Panel), Diffuse correlation spectroscopy (DCS) vs Near Infrared Doppler Spectroscopy | | |
| 12:00 | Lunch | | |

| | Session: Instrumentation (Cont.) (Session chair: Arjun Yodh) | | |
|-------|--|--|--|
| 13:15 | (Invited keynote) Frederic Lesage Polytechnique Montreal, Canada, Characterization of an integrated illumination-detection optode for simplified fNIRS | | |
| 13:45 | (Invited keynote) Turgut Durduran The Institute of Photonic Sciences (ICFO), Spain. <i>Mex</i> t generation cerebral blood flow monitors based on laser speckles | | |
| 14:15 | A. Rajaram, G. Bale, M. Kewin, I. Tachtsidis, K. St. Lawrence, M. Diop, Lawson Health Research Institute, London, Ontario, Canada, <i>A novel hybrid broadband near-infrared/diffuse correlation</i> <i>spectroscopy neuromonitor for simultaneous and real-time quantification of cerebral saturation,</i> <i>perfusion, and metabolism at the bedside</i> | | |
| 14:30 | Stefan A. Carp, Parisa Farzam, Juliette Selb, Parya Farzam, Jason Z. Qu, and Maria A. Franceschini, Massachusetts General Hospital, Charlestown, MA, USA, Brain Health Monitoring during Cardiac Surgeries involving Cardio Pulmonary Bypass | | |
| 14:45 | Pinti, P., Merla, A., Aichelburg, C., Lind, F., Power, S., Swingler, E., Hamilton, A., Gilbert, S., Burgess, P., Tachtsidis, I., University College London, London, UK, <i>Neuroimaging in people freely moving in the real-world with novel wireless fNIRS devices</i> | | |
| 15:00 | Coffee & posters | | |
| | Session: Neuroscience Applications (Session chair: Luca Pollonini) | | |
| 16:00 | (Invited keynote) Joseph P. Culver Washington University in St. Louis, United States <i>Optical imaging of functional connections and networks</i> . | | |
| 16:30 | Hemel N. Modi, Harsimrat Singh, Guang-Zhong Yang, Ara Darzi, Daniel R. Leff, Imperial College London, London, UK, Neural Markers of Sensitivity to Intraoperative Temporal Stress in Surgeons | | |
| 16:45 | C. Bulgarelli, C. de Klerk, A. Hamilton, V. Southgate, and A. Blasi, Birkbeck College, University of London, London, UK, Investigating resting-state networks in infants and toddlers: a longitudinal fNIRS study | | |
| 17:00 | Eva A. Aeschlimann, Joëlle S. Witmer, Andreas J. Metz, Stefan J. Troche, Thomas H. Rammsayer, Claudia M. Roebers, University of Bern, Bern, Switzerland, <i>Disentangling the Effects of Age and</i> <i>Mental Ability onto Verbal Working Memory in Children: A Functional Near-Infrared Spectroscopy</i> <i>Study</i> | | |
| 17:15 | Theodore Huppert, Pat Sparto and Joe Furman, University of Pittsburgh, USA, <i>Concurrent EEG-NIRS</i> of vestibular function | | |
| 17:15 | Social event (See section on Social Program) | | |

Saturday, October 21th

| Time | Talk | | | |
|-------|--|--|--|--|
| | Session: Global NIRS II | | | |
| | (Session chair: Carlos Treviño and Javier Herrera) | | | |
| 08:30 | (Invited keynote) John P. Spencer University of East Anglia, United Kingdom, Assessing infant brain health in India using image-based fNIRS | | | |
| 09:00 | (Invited keynote) Kaja Jasinska University of Delaware, United States, How the brain learns to read in an environment with a high-risk of illiteracy: Using portable fNIRS to study literacy in rural cocoa growing communities of Côte d'Ivoire | | | |
| 09:30 | Pei-Yi Lin, Jason Sutin, Katherine Hagan, Peter Ssenyonga, Edith Mbabazi, Andrea Medina, Fang-Yu Cheng, Katherine Suen, Rutvi Vyas, Francesca Yi, Sarah Blackwell, Parisa Farzam, P. Ellen Grant, Benjamin Warf, Maria Angela Franceschini", Boston Children's hospital, <i>NIRS and DCS in infant</i> <i>hydrocephalus: Unmet need in both the developed and developing worlds</i> | | | |
| 09:45 | A. Blasi, S. Lloyd-Fox, S. McCann, M. Rozhko, C. E. Elwell and the BRIGHT project team, University College London, London, UK, <i>Multi-site fNIRS for charting neurocognitive development in different settings</i> | | | |
| 10:00 | Coffee | | | |
| | Session: Data Analysis and Methods (Session chair: Theodore Huppert) | | | |
| 10:20 | (Invited keynote) Rickson Coelho Mesquita , University of Campinas (UNICAMP), Brazil, <i>The brain as a complex system: unveiling spatial interactions with NIRS functional connectivity</i> | | | |
| 10:50 | Felipe Orihuela-Espina, Samuel A. Montero-Hernández, Luis Enrique Sucar, Shender M. Ávila- Sansores, Gustavo Rodríguez, Arlem Aleida Castillo Ávila, Viviana Hernández-Castañón, Javier Herrera-Vega, Carlos-Treviño, Instituto Nacional de Astrofísica, Óptica y ElectrÃ ³ nica (INAOE), Puebla, Mexico, "Causal analysis for effective connnectivity in fNIRS | | | |
| 11:05 | Luca Pollonini, Heather Bortfeld and John S, Oghalai, University of Houston, USA, Real-time measurement of scalp-optodes coupling for reliable fNIRS data collection | | | |
| 11:20 | Hendrik Santosa, Theodore Huppert, University of Pittsburgh, USA, <i>Concurrent fNIRS-MEG analysis by multi-way partially least squares</i> | | | |

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| 11:35 | Lia M Hocke, Ibukunoluwa K Oni, Alex V Corrigan, Chris C Duszynski, Jeff F Dunn, Hotchkiss Brain Institute, University of Calgary, Calgary, Alberta, Canada, <i>Repeatability of fNIRS measures in the</i> <i>healthy brain</i> | | | |
|-------|--|--|--|--|
| 11:50 | Parikshat Sirpal, Dang Khoa Nguyen, Frederic Lesage, Ecole Polytechnique de Montreal, Montreal, Quebec, Canada, Deep recurrent neural network classifier based detection of epileptic events: fNIRS/EEG multimodal approach | | | |
| 12:05 | Lunch | | | |
| | Session: Clinical Applications (Session chair: Mamadou Diop) | | | |
| 13:15 | (Invited keynote) Arjun G. Yodh , University of Pennsylvania, United States, <i>Blood Flow, Oxygen and Oxygen Metabolism Biomarkers During Surgery and in the Neuro-ICU</i> | | | |
| 13:45 | (Invited keynote) Ilias Tachtsidis, University College London, United Kingdom, Optical Bedside Biomarkers of Brain Function in Birth Asphyxiated Infants | | | |
| 14:15 | Androu Abdalmalak, Daniel Milej, Loretta Norton, Derek Debicki, Teneille Gofton, Mamadou Diop, Adrian M. Owen, and Keith St. Lawrence, Western University, London, ON, Canada, Single-session communication with a locked-in patient | | | |
| 14:30 | Heather Bortfeld, Cristen Olds, Luca Pollonini and John S, Oghalai University of California, Merced, CA, USA, Cortical activation correlate with speech understanding after cochlear implantation | | | |
| 14:45 | Ali Kassab, Parikshat Sirpal, Anne Gallagher, Alain Bouthillier, Dang Nguyen, University of Montreal, Montreal, Quebec, Canada, <i>Seizure induced atypical language lateralization: an fNIRS study</i> | | | |
| 15:00 | Coffee & posters | | | |
| 16:00 | Closing (Session chair: Maria Angela Franceschini) | | | |
| | (Closing keynote) David Boas , Boston University/Massachusetts General Hospital, United States, <i>fNIRS in 2023</i> | | | |
| 17:00 | Social event (See section on Social Program) | | | |
| L | | | | |

* Upon finishing Prof. Boas talk, those who are joining the excursions are invited to stay a few minutes more. Prof Leyva will give some final advice and remarks.

Poster Sessions

Works accepted for poster presentation can set up their posters on Friday, October 20 and may remain in place until the end of the conference. Works accepted for oral presentation, if wanted, can further exhibit a companion poster but can only set up their posters on Saturday, October 21. Please note that only the first author is indicated in the following table.

| # | Authors | Title |
|----|-----------------------------------|--|
| 1 | Estefania Hernández- Martin | A new approach for processing DOT data using canonical SPM: A motor study. |
| 2 | Miguel Adrian Mireles Nuñez | Brain Hemodynamics and Gold Nanoparticles accumulation monitored by diffuse optical spectroscopies |
| 3 | Maria Angela Franceschini | NIRS-DCS to assess cognitive performances improvements with treatment of malnutrition in rural Africa children |
| 4 | Ernesto Elias Vidal Rosas | High-density speckle contrast optical tomography of brain activation |
| 5 | Felipe Orihuela-Espina | Causal analysis for effective connectivity in fNIRS |
| 7 | Laura Kischkel | Maturation of haemodynamic responses during memory processing: an fNIRS study of 8-12 month old infants in the UK and The Gambia. |
| 8 | Maria Elizabeth Monica Carlier | Study of the auditory memory in at-risk and full-term new-born infants and in adults using simultaneous registration NIRS-EEG |
| 9 | Paola Pinti | Neuroimaging in people freely moving in the real-world with novel wireless fNIRS devices |
| 10 | Androu Abdalmalak | A potential cause of inverse oxygenation during motor imagery |
| 11 | Androu Abdalmalak | Single-session communication with a locked-in patient |
| 12 | Anna Blasi | Multi-site fNIRS for charting neurocognitive development in different settings |
| 13 | Candida Da S.F. Barreto | A novel method to analyse fNIRS data from ecological experiments |
| 14 | Ajay Rajaram | A novel hybrid broadband near-infrared/diffuse correlation spectroscopy neuromonitor for simultaneous and real-time quantification of cerebral saturation, perfusion, and metabolism at the bedside |
| 15 | Paola Pinti | Which is the best Blood-Level-Oxygen-Dependent signal for the identification of functional activation in fNIRS? |
| 16 | Eva Aeschlimann | Disentangling the Effects of Age and Mental Ability onto Verbal Working Memory in Children: A Functional Near-Infrared Spectroscopy Study |

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| 17 | Chiara Bulgarelli | Investigating resting-state networks in infants and toddlers: a longitudinal fNIRS study |
|----|-------------------------------------|---|
| 18 | Carlos Gerardo Treviño- Palacios | RAfA: Reconfigurable Attachment for fNIRS Analysis |
| 19 | Salima Taylor | Methodology for testing a village-prepared supplement for prevention of malnutrition in West Africa |
| 20 | Danielle Forster | Continuous FD-NIRS of Hypoxic-Ischemic Encephalopathy during cooling for 84 hours |
| 21 | Parikshat Sirpal | Deep recurrent neural network classifier based detection of epileptic events: fNIRS/EEG multimodal approach |
| 22 | Pei-Yi Lin | NIRS and DCS in infant hydrocephalus: Unmet need in both the developed and developing worlds |
| 23 | Samuel Montero | Group-level Graphical Causal Modelling of Effective Connectivity in fNIRS |
| 24 | Hemel Modi | Neural Markers of Sensitivity to Intraoperative Temporal Stress in Surgeons |
| 25 | Hannah Felicitas Behrendt | Motion correction for infant functional near-infrared spectroscopy |
| 26 | Katherine Perdue | Statistical learning differences in stunted and non-stunted Bangladeshi toddlers |
| 27 | Luca Pollonini | Real-time measurement of scalp-optodes coupling for reliable fNIRS data collection |
| 28 | Sergio Novi | Simultaneous NIRS and fMRI connectivity of the human brain at rest with graph theory |
| 29 | Sergio Novi | Comparison of frequency analysis and group averages in different NIRS protocols |
| 30 | Ali Kassab | Seizure induced atypical language lateralization: an fNIRS study |
| 31 | Theodore Huppert | Concurrent fNIRS-MEG analysis by multi-way partially least squares |
| 32 | Theodore Huppert | The NIRS+ toolbox |
| 33 | Theodore Huppert | Concurrent EEG-NIRS of vestibular function |
| 34 | Lia Hocke | Repeatability of fNIRS measures in the healthy brain |
| 35 | Luca Pollonini | Cortical activation correlate with speech understanding after cochlear implantation |
| 36 | Stefan Carp | Brain Health Monitoring during Cardiac Surgeries involving Cardio Pulmonary Bypass |
| | | |

Social Program

The social program is included with your registration.

Friday, October 20: Welcome reception

Reception will be offered at INAOE's campus as from 6 pm.

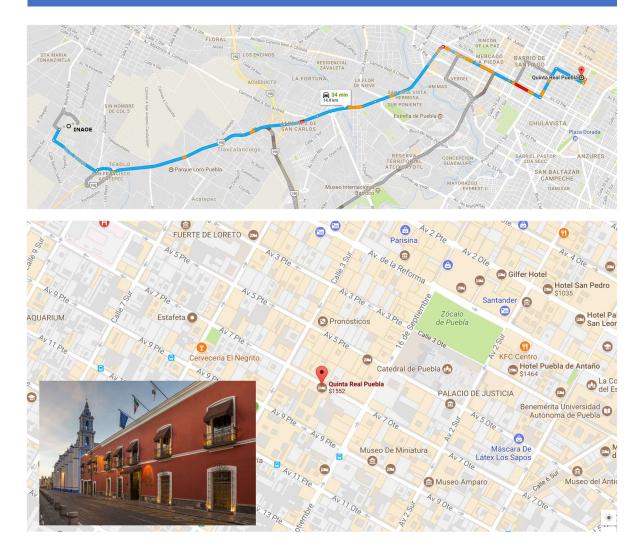
Saturday, October 21: Gala dinner

The symposium Gala dinner will be at Hotel Quinta Real Puebla (Av 7 Pte 105, Centro, 72000 Puebla, Pue). Transport to Puebla and back to Cholula and INAOE will be provided. Transport will leave from INAOE at 5:30pm. Return from Hotel Quinta Real Puebla is programmed at 22:30pm. If you opt to go on your own, please find maps below.



Hotel Quinta Real Puebla

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Excursions to the volcanoes

We are organizing one excursion to hike in the Popocatepetl and Iztaccihuatl National Park. The park sits at an average altitude of 3,900 m and is a UNESCO biosphere reserve with endemic flora and fauna. Transport will depart from INAOE and takes about 2h. Hiking will be for about 7h. In these, we will be guided by a team of expert mountaineers (Prof. José Luis Leyva and Dr. Marcela Reyes) from our neighbor Meritorious Autonomous University of Puebla (BUAP). Find details about the itinerary, clothing, safety and other aspects at:

http://ccc.inaoep.mx/~bio/NIRS2017/?n=Main.SocialProgram

Warning. If you plan to take the excursion, please consider the fact that both are at a high altitude and some people may experience associated sickness. Be sure to use sunblock.

If you have registered for the excursions, Prof Leyva will give us some very brief instructions on Friday (right after the symposium closure), and **be sure you are at INAOE gates by 5:45am on Sunday** October 22, 2017 with appropriate clothes. If you haven't registered, but you are interested in taking the excursion, please, let us know as soon as possible.

• NOTE: This excursion is **not** part of the social program of the conference. It is therefore not covered by the registration fee. There is an additional cost of 180 USD to cover access to the national parks as well as the assistance by the mountaineers. Although the local team will be helping but please note that INAOE will not be responsible for the excursions.

Polls

Standardization survey

As announced on the latest newsletter from the Society for functional near-infrared spectroscopy (SfNIRS), there is an ongoing survey regarding standardization that will help the new standardization committee lead by Prof. Alessandro Torricelli to focus on the topics that are more relevant to the community. Please, if you can, take the time to answer survey online.

- SfNIRS newsletter, October: <u>http://fnirs.org/sfnirs-newsletter-october-2017/</u>
- Standardization Committee initial steps: <u>http://fnirs.org/strengthening-the-society-first-steps-towards-standardization/</u>
- Online standardization google survey: <u>https://goo.gl/forms/7AdpudZ84uWY3PSf2</u>

MexNIRS Polls

During the symposium, you will be invited to participate in an online poll. Polling will be supported by online polling service: <u>https://www.polleverywhere.com/</u>

To participate, please follow the instructions at:

http://ccc.inaoep.mx/~bio/NIRS2017/?n=Main.Polls

Below, you'll find the list of polls for your reference.

| Section I: Assessment of the event | | |
|---|--|--|
| Section Ia: Quality | | |
| On a scale of 0 (less) to 10 (more), how have you enjoyed the symposium? | Multiple choice: 0 /10 | |
| What terms would you use to describe the meeting? | Open response; three terms (comma separated) | |
| How did the event compare with your expectations? | Multiple choice: Much worse than expected / Slightly below my expectations / Matched my expectations / Slightly above my expectations / Much better than expected | |
| How useful/interesting were the talks? | Multiple choice: (out of 5); 1 very little; 5 very much | |
| Overall quality of the meeting contents (all; keynote and invited talks, contributed talks and posters)? | Multiple choice: Very low / Low / Average / Good / Excellent | |
| Section Ib: Organization | | |
| Overall appreciation of the organization | Multiple choice: You guys have no idea about organizing events / Not impressed, it could have been easily improved / I appreciate your efforts but / Nice work, buddies! / Outstanding! I wish I was that good! | |
| Did you like the format of the meeting? | Open response | |
| What would be your overall recommendations for improvement (inc. format, venue, conference organization, accommodation, availability of proceedings -ISBN registration or negotiated special issue-, length of abstracts, social program, duration, etc)? | Open response | |
| Section Ic: Future meetings | | |
| meetings? | Multiple choice: Definitively yes / Yes, but location is an issue / No | |
| What do you think the role of MexNIRS should be? | Multiple choice: Topic specific but appealing to worldwide audience (e.g. Global NIRS) / Regional general meeting (e.g. for LatinAmerica) / Training oriented (convert to a school- like event) | |

Do not response to the polls here. Do it online. See instructions above.

| Section II: Community integra | ation |
|--|---|
| What are the key topics we should suggest for fNIRS 2018 in | Open response; three terms |
| Tokyo? | (comma separated) |
| What is your career stage? | Multiple choice: Professor / |
| | Early career researcher / |
| | Postdoc / PhD student / Industry |
| | / Other |
| What is the biggest barrier to your work in NIRS? | Open response |
| What type of collaboration are you more likely to engage in with the fNIRS community (please choose all that apply)? | Multiple choice: Sharing equipment / Exchanging analytical tools (i.e., algorithms) |
| | / Conducting multi-center (animal or human) studies / |
| | Sending your data for analysis / |
| | analyzing data from another lab |
| | / Accepting research visitors in |
| | our lab (either students or |
| | senior) |
| Should the community embrace the open science | Open response |
| movement? | |
| How would you suggest promoting NIRS research, education and use in countries and world regions with low rates of investment in R+D? | Open response |
| There is now several local meetings (e.g. fNIRS UK, 2fNIRS, | Multiple choice: They do not |
| MexNIRS) that complement the main SfNIRS biennial | conflict and they are all |
| meeting. How do they co-exist (choose all that apply)? | perceived as convenient / We |
| | maybe saturating a small |
| | community / They should only |
| | be celebrated in the gap years of |
| | the main SfNIRS biennial |
| | meeting / I'm missing a more |
| | general neurophotonics meeting |
| What's the conference (in general) that better matches your | Open response (1 conference |
| research interest e.g. OHBM, ISOTT, SfNIRS, SPIE, BRAIN, etc? | name) |

| Section III: Scientific issues | | |
|--|---|--|
| Was the chosen topic (Global NIRS) timely and exciting? | Multiple choice: Timely and exciting / Timely but not treated adequately / Inadequate | |
| Following the panel discussion on DCS vs NIDS, what name do you think is more appropriate? | Multiple choices: PENDING THE RESULTS OF THE PANEL | |
| If there was to be a grand challenge for NIRS, what would be it? | Open response | |
| If there was to be a collective effort to apply for funding to the BRAIN initiative, | | |
| Would you consider participating? | Multiple choice: I'm not so much interested in increasing my current collaboration / Not now, as I have other commitments / Yes, as long as I'm not the leader / Yes, but only if my group leads the effort / Yes, on any role but only if the topic is strictly aligned with my research interest / Yes, and I'm happy to take any role that is appropriate and I'm flexible with the topic | |
| If you are willing to participate, what general topic would you be more likely to be interested? | Multiple choice: Clinical application / Neuroscientific application / Data analysis / Instrumentation / Hybrid / Other (indicate) | |
| Suggest a specific topic for a potential application? | Open response | |

Do not response to the polls here. Do it online. See instructions above.

Panel on "Diffuse correlation spectroscopy (DCS) vs Doppler Near Infrared Spectroscopy"

- Panel Goal: DCS is becoming more popular but the current branding appears unappealing as it might be perceived as distant to NIRS and it is likely meaningless to clinical audience. Several alternative names might be emerging in literature to bring the modality closer to the end users. This panel shall aim to clarify the importance of having the right name and try to reach a consensus that appeals the community.
- Panel members: 3 panellists (Boas, Yodh and Durduran) and 1 moderator (Franceschini)
- Questions:
 - Why is agreeing on a name is important and why the current situation is unsatisfactory?
 - What has a good name to comply with? Should the name be dictated by the physics of the imaging principle or by the likely application field e.g. medicine?
 - Subtopic: What about oxygenated and deoxygenated hemoglobin, should we try to use the same acronyms? HbO, HbO2, oxy-Hb etc are used for oxy; HbR, Hb, deoxy-Hb, etc. are used for deoxy.
 - What would be your suggested name? Pros and cons of the different alternative names?

From the suggested names -by each panel members- (as summarized by moderator) we shall fill the poll multiple choice answers (See above).

Practical information

Internet access

Access to internet in the auditorium and its lobby as well as from the bungalows, is **without password**. Just connect to any of these networks

wls-inaoe1

wls-inaoe2

If you intend to access from somewhere else in campus, your computer MAC address must be registered with INAOE's computing services, and you will be provided with a password. Please do contact a member of the local team who will be able to assist you in this matter.

Staying at INAOE's bungalows?

Those staying in INAOE's bungalows can get to the campus by following the instructions above. You can stay in the bungalows beginning the day before the symposium starts. Please proceed to the main gates, where you will find security guards. Introduce yourself as a symposium attendee and they will give you an envelope with your name and a key to your bungalow. If you are a student, please be aware that you may be sharing your accommodations with other students. If you are not arriving with your roommates it may be that they are already there, or that they will arrive later.

The bungalows are located just a few meters *before* the gates; you will pass them on Luis Enrique Erro Street. Those staying at the bungalows must abide by the rules:

If you are in an individual bungalow, you will receive an envelope with your key. You can keep this during your stay; you are responsible for it. If you are in a shared bungalow, there might be two or three shared for everyone in the same bungalow. If you are the last to leave the bungalow, please ensure that you leave one of the keys with security.

At the end of your stay you must return your key to the security guards in the same envelope in which it was given to you upon arrival.

Assignment of bungalows has been made according to a number of criteria. Please note that no request for reassignment will be considered.

You shall return the bungalow in the same condition that you found it.

Tap water is NOT drinkable.

All bungalows are equipped with a kitchenette and a refrigerator.

Tonantzintla is a small village and doesn't have a market or a supermarket. There are only a few small shops and inns where you can get food for breakfast or dinner. Alternatively, you can get to Cholula, only a few minutes away using public transportation, but please remember that the public transportation stops at 9pm. After 9pm, you can still get a taxi.

The INAOE canteen is next to the parking area and the bungalows. It offers breakfast on weekdays from 8:00am to 11:00am. The cost is \$53 MXN. Please note that internet reception in the bungalows is available but often weak.

Important things to consider during your stay

On the first day of the symposium, you will find a registration module located just beyond the security booth near the main gates. Upon registering, you will be provided with details for internet access on campus. You can find a map of INAOE's main campus here:

http://www.inaoep.mx/mapa instalaciones.php

Autumn in Puebla is mostly cool with morning and late evening temperatures of around 5°-10° Celsius. At midday, temperatures rise up to 20°-25° Celsius. Please see:

https://weatherspark.com/averages/32582/Puebla-Mexico

The rainy season should be almost over now but you may still see some moderate rain, often in the afternoon.

Whether in a shop or a restaurant, please let the keeper know in advance if you need a bill.

Safety tips

You might have heard about issues with violence in Mexico. While this terrible news may be true, it is also true that violence is confined to very specific regions in Mexico where drug cartels operate; most of the country is as safe as rural U.S. states. You can find statistics and other information here:

http://www.howsafeismexico.com/

Moreover, Puebla is known to be among the safest places in Mexico, so enjoy your visit! Nevertheless, use common sense:

- Avoid walking alone at night in general, and in particular on streets that lack lighting and/or appear empty or deserted.
- Taxis do not have meters. You have to negotiate the rate in advance. For this reason, it is best to avoid getting in a taxi on the street.
- Beware of food hygiene if you decide to eat from a street stall.
- Try to keep watches, jewelry, mobile phones, etc. hidden from view.

What to do and see

For ideas about what to do and see during your stay, visit the event website:

http://ccc.inaoep.mx/~bio/NIRS2017/?n=Main.Tourism

Enjoy Puebla and the Symposium

Maps

INAOE Campus map



- *Entrance*: You have entered INAOE by the main gates where you should have pass security (Building 7).
- Auditorium: The talks of the oral sessions will take place in the "Luis Enrique Erro" Information Center (Building 6), about 30 meters from the campus' main gates to the right. The auditorium is on the ground floor of the building, which is easy to identify. With its distinctive dome, it resembles an observatory.
- *Coffee breaks and Poster sessions*: These will take place in the lobby of the "Luis Enrique Erro" Information Center (Building 6)
- Lunch: Both days, Friday October 20 and Saturday, October 21, the lunch will be served in a tent beside the "Luis Enrique Erro" Information Center (Building 6)
- *Bungalows*: If you are staying at the bungalows, these are in the yellow area (Buildings B, D, and C).

NOTES

Use this space to make your notes.