Program Booklet

fNIRS 2016
October 13-16, 2016

Université Paris Descartes
12 rue de l’Ecole de Médecine
Paris
Welcome to Paris!

The fNIRS community can be proud of the continuing increase in the number of contributions to our biannual conference on functional near-infrared spectroscopy, now reaching over 255 abstracts submitted. From the many excellent contributions, we have aimed to arrange a program that will spur discussions and inspire everyone to produce new and exciting work in the field. To evaluate the submissions and organize the sessions, many colleagues have been helping us and we thank them all for their work. Following on Boston, London, and Montreal, we hope you enjoy the setting of Paris for this year’s conference and wish you a great time!

Joe Culver & Judit Gervain
co-chairs
Acknowledgements

Many people have contributed to the organization of the conference. We are grateful to all of them for their help.

We have relied on the program committee for their valuable input on the program: Heather Bortfeld, Frédéric Dehais, Turgut Durdu, Adam Eggebrecht, Joy Hirsch, Fumitaka Homae, Jana Kainerstorfer, Sarah Lloyd-Fox, Chuck Nelson, Hellmuth Obrig, Nadege Roche, and Fabrice Wallois.

The abstracts were reviewed this year by Nawal Abboub, Cédric Albinet, Maria Arredondo, Richard Aslin, Hasan Ayaz, Wesley Baker, Sara Basso Moro, Adam Bauer, Katarina Begus, Silvia Benavides-Varela, Karla Bergonzi, Anna Blasi, Camillia Bouchon, Emilie Bourel-Ponchel, Sabrina Brigadoi, David Busch, Laurianne Cabrera, Mickael Causse, Tom Chau, Davide Contini, Robert Cooper, Kimberly Cuevas, Dean D'Souza, Ippeita Dan, Irene De La Cruz Pavia, Hamid Dehghan, Maryse Delaunay-El Allam, Swethasri Dravida, Gerard Dray, Thomas Dresler, Gautier Durantin, Lauren Emberson, Eve F. Fabre, Qianqian Fang, Silvina Ferradal, Marco Ferrari, Alissa Ferry, Andrew Fishell, Allison Fox, Maria Angela Franceschini, Amir Gandjbakhche, Martina Giovannella, Theodore Gliga, Edgar Guevara, Ramon Guevara Erra, Angela Harrivel, Masahiro Hirai, Joseph Hollmann, Yoko Hoshi, Theodore Huppert, Daniel Hyde, Cécile Issard, Kurtulus Izzetoglu, Metlem Izzetoglu, Philip Jackson, Kaja Jasinska, Michal Kacprzak, Ioulia Kovelman, Chuen Wai Lee, Kevin Mandrick, Andrei Medvedev, Rickson Mesquita, Yasuyo Minagawa, Monika Molnar, Noman Naseer, Ryota Nishiyori, Adam Noah, Ahmet Omurtag, Ashwin B Parthasarathy, Katherine Perdue, Stéphane Perrey, Luca Pollonini, Valentina Quaresima, Manon Ranger, Raphaëlle Roy, Dima Safi, Angelo Sassaroli, Hiroki Sato, Sébastien Scannella, Felix Scholkmann, Mohinish Shukla, Keith St Lawrence, Jens Steinbrink, Clara Suiied, Ilias Tachtisdis, Gentaro Taga, Fenghua Tian, Yunjie Tong, Teresa Wilcox, Xian Zhang

We wish to thank the coordinators of the training course, Frédéric Dehais and Stéphane Perrey, as well as the other instructors Ardalan Aarabi, Hasan Ayaz, Kevin Mandrick, and Fabrice Wallois, for their work.

This conference could not have been organized without the enthusiasm, encouragement and hard work of the Society’s President, David Boas, its President Elect, Clare Elwell and its Secretary, Martin Wolf.

Gary Boas did a wonderful job at creating and updating the conference website. The help we received from Stacey Ladieu and Lucie Martin was instrumental in making the conference happen.

We are grateful to the volunteers who helped before and during the conference.

Last, but not least, we wish to thank our host and our sponsors, for their support.
Host

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Training Course venue

Room Lavoisier A
Université Paris Descartes
Centre Universitaire des Saints-Pères
45 rue des Saints-Pères
75006 Paris

subway (métro): line 4 Saint-Germain-des-Près station, line 10 Mabillon station, line 12 rue du Bac station
public transport information and route planner: www.ratp.fr
Conference venue

Main Building
Université Paris Descartes
12 rue de l’École de Médecine
75006 Paris

subway (métro): line 4 Odéon station, line 10 Cluny-La Sorbonne station
public transport information and route planner: www.ratp.fr
Social event venue & information

Saturday, Oct 15th, 8pm-midnight

Pavillon Daunou
18 rue Daunou
75002 Paris

Only cash will be accepted
- Soft 3€
- Wine/Beer 4€
- Hard 5€
- Champagne/Vodka Redbull 7€
- Bottle of wine 28€
- Bottle of champagne 65€

30 min walking

BUS line 21 or line 27:
Les Écoles station (direction Gare Saint-Lazare) to Opéra-4 Septembre station
# Program at a Glance

**Université Paris Descartes Main Building, 12 rue de l’Ecole de Médecine, Paris**

**Oral Presentations:** Grand Amphithéâtre, Posters: Grand Hall, Galerie Saint-Germain

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Maria Angela Franceschini | **11:00-12:15** Brain & Systemic Physiology  
Invited Talk  
Ursula Wolf | **11:00-12:30** Hardware Development I  
Invited Talk  
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| **7:00-8:00** Reception | **12:15-1:15** Early Investigators Awards | **12:30-1:30** Lunch | **12:30-1:30** Lunch |
| **2:00-3:30** Clinical Applications I  
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Ippeita Dan | **2:45-4:30** Posters & Coffee Break | **3:00-4:30** Neurocognition  
Invited Speaker  
Frédéric Dehais |
| **5:00-6:45** Multimodal Monitoring  
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Solomon Diamond | **3:30-5:00** Posters & Coffee Break | **4:30-6:00** Special Invited Session  
“Global fNIRS” | **4:30-5:00** Closing Remarks |
| **8:00-** | **6:00-6:30** FNIRS Society General Assembly | **6:00-6:30** FNIRS Society General Assembly | **8:00-** Social Event  
Pavillon Daunou, 18 rue Daunou |
Detailed Program

Oral presentations: Grand Amphithéâtre
Poster presentations, lunch and coffee breaks: Grand Hall & Galerie Saint Germain

Locations other than the main venue are indicated separately in the program below.

Oct 13th THURSDAY

9:00-4:30: Training Course
CUSP Building, 45 rue des Saints-Pères, 75006, Paris
Note that this event is not part of the main conference program and requires separate registration and payment.

5:30-6:00: Opening remarks
Judit Gervain, co-chair
Claude Meunier, president, Institut Neurosciences & Cognition, Université Paris Descartes

6:00-7:00: Keynote: Maria Angela Franceschini [chair: Joseph Culver]
Clinical neuro-monitoring with NIRS-DCS

7:00-8:00: Reception

Oct 14th FRIDAY

8:30-10:00 Neurodevelopment 1 [chairs: Heather Bortfeld & Nadège Roche]

8:30-9:00 Invited talk
Yasuyo Minagawa: Neuroimaging the developing brain: From the neonatal period to adolescence

9:00-9:15 Silvia Benavides-Varela, Roma Siugzdaite, David. M. Gómez, Francesco Macagno, Luigi Cattarossi, Jacques Mehler: Functional interactions among cortical regions supporting word learning in newborns

9:15-9:30 Laurianne Cabrera, Judit Gervain: The processing of slow and fast temporal cues in phonetic perception at birth, an EEG-NIRS study

9:30-9:45 Lauren Emberson, Alex Boldin, Julie Riccio, Ronnie Guillet and Richard Aslin: Deficits in Top-Down, Sensory Prediction in Infants At-Risk Due to Premature Birth

9:45-10:00 Simone Cutini, Déné Szűcs, Natasha Mead, Martina Huss, Usha Goswami: Atypical right hemisphere response to slow temporal modulations in children with developmental dyslexia

10:00-11:00 Poster Session 1 & Coffee
11:00-12:15 Brain and Systemic Physiology [chairs: Turgut Durduran & Gemma Bale]

11:00-11:30 Invited talk
Ursula Wolf: A novel methodology to better understand what is happening in the brain: Systemic physiology complemented functional near-infrared spectroscopy (SPC-fNIRS)

11:30-11:45 Davide Tamborini, Parisa Farzam, Bernhard Zimmerman, Kuan-Cheng Wu, Jason Sutin, David Boas and Maria Angela Franceschini: Multi-wavelength, multi-distance diffuse correlation spectroscopy for simultaneous measurement of blood flow and hemoglobin oxygenation

11:45-12:00 Matthew Caldwell, Felix Scholkmann, Ursula Wolf, Martin Wolf, Clare Elwell and Ilias Tachtsidis: Computational modelling of the effects of systemic physiology on brain haemodynamics suggests that physiological confounding is able to both mask and mimic functional activation

12:00-12:15 Yoko Hoshi, Yukari Tanikawa, Eiji Okada, Hiroshi Kawaguchi, Manabu Machida, Masahito Nemoto, Toru Kodama and Masataka Watanabe: Estimation of optical properties of the cerebral tissue using time-resolved spectroscopy of femtosecond laser pulses

12:15-1:15 Early Investigator Award Presentations [chair: Clare Elwell]
Meryem Ayse Yucel, Juliette Selb, Christopher Aasted, Pei-Yi Lin, David Borsook, Lino Becerra and David Boas: Mayer waves reduce the accuracy of estimated hemodynamic response functions in functional Near-Infrared Spectroscopy
Sarah Lloyd-Fox, Anna Blasi, Greg Pasco, Theodore Gliga, Clare E Elwell, Tony Charman, Declan Murphy, Mark Johnson: Neural signature of autism evident before six months of life
Robert Cooper, Sabrina Brigadoi and David Boas: Array Designer: automated optimum array design for functional near-infrared spectroscopy

1:15-2:00 Lunch

2:00-3:30 Clinical Applications 1 [chairs: Joy Hirsch & Juliette Selb]

2:00-2:30 Invited talk
Ippeita Dan: fNIRS-based neuropharmacological assessment on children with attention deficit/hyperactivity disorder

2:30-2:45 Carly Anderson, Ian Wiggins, Padraig Kitterick, Douglas Hartley: Cortical activation measured using fNIRS: a predictor of cochlear implant outcome?

2:45-3:00 Willy Mattheus, Sonja Rossi, Dirk Mürbe, Anja Hahne: Speech and Music processing by postlingually deafened cochlear implant patients

3:00-3:15 Mana Manoochehr, Mahdi Mahmoudzadeh, Victoria Osharina, Fabrice Wallois: Fast Optical Signal Changes during Epileptic Spikes in the Human Model

3:15-3:30 Martina Giovannella, Guillem Mitjìà, Clara Gregori-Pla, Michal Kacprzak, David Ibañez, Giulio Ruffini, Turgut Durduran: Concurrent diffuse optical measurement of cerebral hemodynamics and EEG during transcranial direct current stimulation (tDCS) in humans
3:30-5:00 Poster Session 2 & Coffee

5:00-6:45 Multimodal Monitoring [chairs: Adam Eggebrecht & Tanja Dragojevic]

5:00-5:30 Invited talk
Solomon Diamond: Multimodal fNIRS and EEG for studying neurovascular coupling

5:30-5:45 Takashi Numata, Masashi Kiguchi and Hiroki Sato: Multimodal measurement of brain responses to word memory task extracted from EEG, NIRS, and pupil diameter signals

5:45-6:00 Adrian Curtin, Jijun Wang, Junfeng Sun, Shanbao Tong, Banu Onaral and Hasan Ayaz: Concurrent fNIRS and TMS for comparison of Evoked Responses to Pulse-Matched High Frequency and Intermittent Theta Burst Stimulation


6:15-6:30 Dariusz Janusek, Piotr Lachert, Przemyslaw Pulawski, Daniel Milej, Piotr Sawosz, Michal Kacprzak and Katarzyna Blinowska: Simultaneous measurement of brain activity by functional near infrared spectroscopy and electroencephalography during motor task

6:30-6:45 Mahnoush Amiri, Alexandru Hanganu, Frédéric Lesage and Yves Joanette: A multimodal approach to evaluate the effect of cortical morphology of normal aging on the hemodynamic response measured by fNIRS: A language study

Oct 15th SATURDAY

8:30-10:00 Clinical Applications 2 [chairs: Ippeita Dan & Hasan Ayaz]

8:30-8:45 Claus Lindner, Ivette Chocrón Da Prat, Ángela Sánchez-Guerreiro, Joseph L Hollmann, Michal Kacprzak, Udo M Weigel, Olga Martinez Silva, Miriam de Nadal, Juan Sahuquillo, Turgut Durduran: Microvascular cerebral metabolism and blood flow and bispectral index

8:45-9:00 Bettina Sorger, Laurien Nagels-Couve, Amaia Benitez Andonegui, Michael Lührs, Lars Riecke, Rainer Goebel: Brain-based communication via online-decoded fNIRS signals

9:00-9:15 Androu Abdalmalak, Daniel Milej, Mamadou Diop, Mahsa Shokouhi, Lorina Naci, Adrian Owen, Keith St. Lawrence: Feasibility of fNIRS as a Brain Computer Interface for Studies of Disorders of Consciousness


9:30-9:45 Juliette Selb, Jason Sutin, Pei-Yi Lin, Parisa Farzam, Bernhard Zimmermann, Kuan Cheng Wu, Davide Tamborini, Zachary Starkweather, Sophia Bechek, Apeksha Shenoy, Siddharth Biswal, David Boas, Eric Rosenthal, Maria Angela Franceschini: Prolonged monitoring of cerebral blood flow and autoregulation in subarachnoid hemorrhage and stroke patients with diffuse correlation spectroscopy
9:45-10:00  Adam Eggebrecht, Karla Bergonzi, Andrew Fishell, Hamid Dehghani, Jin-Moo Lee, Joseph Culver: Bedside mapping of brain function during acute stroke recovery using High-Density Diffuse Optical Tomography

**10:00-11:00 Poster Session 3 & Coffee**

**11:00-12:30 Hardware 1 [chairs: Alessandro Torricelli & Anna Gerega]**

11:00-11:30 Invited talk
Frédéric Lesage: Towards wearable NIRS

11:30-11:45 Davide Contini, Mauro Buttafava, Edoardo Martinenghi, Alberto Dalla Mora, Marco Renna, Antonio Pifferi, Alberto Tosi, Alessandro Torricelli: A compact low-power Time-Domain fNIRS system

11:45-12:00 Tanja Dragojevic, Joseph L. Hollmann, Davide Tamborini, Mauro Buttafava, Joseph P. Culver, Franco Zappa, Turgut Durduran: Speckle contrast optical spectroscopy of the adult brain with a novel, compact system

12:00-12:15 Karla Bergonzi, Adam Eggebrecht, Joseph Culver: Lightweight high-density diffuse optical tomography using sCMOS detection

12:15-12:30 Phong Phan, David Highton, Jonathan Lai, Ilias Tachtsidis, Martin Smith and Clare Elwell: A New Multichannel Broadband Near-Infrared Spectroscopy System to Measure the Spatial Distribution of Cellular Oxygen Metabolism and Tissue Oxygenation

**12:30-1:30 Lunch**

**1:30-2:45 Neurodevelopment 2 [chairs: Sarah Lloyd-Fox & Cécile Issard]**

1:30-1:45 Nawal Abboub, Thierry Nazi, Judit Gervain: Prosodic grouping at birth

1:45-2:00 Katherine Perdue, Julia Cataldo, Sarah A. McCormick, Alissa Westerland, Charles A. Nelson: fNIRS reveals distinct infant emotional face processing

2:00-2:15 Vanessa Reindl, Christian Gerloff, Wolfgang Scharke, Kerstin Konrad: Brain-to-brain synchrony of parent and child during cooperation revealed by fNIRS hyperscanning

2:15-2:30 Alexa Ellis, Xiaosu Hu, Rebecca Marks, Pamela Davis-Kean, Craig Smith, Ioulia Kovelman: Shedding Light On Precursors to Division: An fNIRS Study

2:30-2:45 Lourdes Delgado Reyes, Sobanawartiny Wijeakumar, Vincent Magnotta, John P. Spencer: Connecting the Dots: Brain-Behavior Relationships Between Looking Tasks and Explicit Decision Tasks

**2:45-4:30 Poster Session 4 & Coffee**

**4:30-6:00 Special Session “Global fNIRS” [chair: Charles A. Nelson & Katherine Perdue]**

4:30-4:40 Charles A. Nelson: Global fNIRS: An Introduction

4:40-5:00 John P. Spencer, Sobanawartiny Wijeakumar, Lourdes Delgado Reyes, Aarti Kumar, Vishwajeet Kumar: Infant brain health in India: Assessing working memory capacity using image-based fNIRS

5:00-5:20 Pei-Yi Lin, Jason Sutin, Parisa Farzam, Juliette Selb, Fang-Yu Cheng, Peter Ssemyonga, Edith Mbabazi, John Kimbugwe, Joyce Nalwoga, Esther Nalule, Brian Kaaya, Katherine Hagan, P. Ellen Grant, Benjamin Warf, Maria Angela Franceschini: Cure Forward: A novel diagnostic tool to improve infant hydrocephalus outcomes in the developing and the developed worlds

5:40-6:00  Charles A. Nelson, Katherine L. Perdue, Swapna Kumar, Alissa Westerlund, Sarah Lloyd-Fox, Clare Elwell, Sarah Jensen, Annie Berens: The use of fNIRS in the study of early cognitive development in Dhaka, Bangladesh

6:00-6:30  fNIRS Society General Assembly

8:00-  Social Event
Pavillon Daunou, 18 rue Daunou, 65002, Paris

Oct 16th SUNDAY

8:30-10:00 Neonatal & Pediatric Applications [chair: Fabrice Wallois & Ardalan Aarbi]

8:30-9:00 Invited talk
Gorm Greisen: Testing the benefit and harms of cerebral oxygenation monitoring in preterm infants

9:00-9:15 Fumitaka Homae, Hama Watanabe, Gentaro Taga: The Characteristics of the Cortical Functional Networks in Individual Infants
9:15-9:30 Laura Dempsey, Robert Cooper, Maria Chalia, Samuel Powell, Chuen Wai Lee, Andrea Edwards, Nicholas Everdell, Dimitrios Airantzis, Andrew Michell, Adam Gibson, Simon Arridge, Topun Austin, Jeremy Hebden: Time-resolved diffuse optical tomography of the infant brain during neuropathological events and passive arm movement
9:30-9:45 Fang-Yu Cheng, Katherine Hagan, Yvonne Sheldon, Meryem A. Yücel, Kuan-Cheng Wu, P. Ellen Grant, Maria Angela Franceschini, Pei-Yi Lin: Maturation of cerebral hemodynamic response in premature infants
9:45-10:00 Yoko Hakuno, Yasuyo Minagawa: Neural activations to mutual gaze and contingent responsiveness during live interactions in infancy

10:00-11:00 Poster Session 5 & Coffee

11:00-12:30 Data Analysis and Hardware 2 [chairs: Frédéric Dehais & Kevin Mandrick]
11:00-11:15 Thomas Vincent, François Tadel, Alexis Machado, Zhengchen Cai, Giovanni Pellegrino, Louis Bherer, Jean-Marc Lina, Sylvain Bailet, Christophe Grova: NIRSTORM: a brainstorm plugin dedicated to joint EEG/fNIRS analysis
11:30-11:45 Andrew Fishell, Adam Eggebrecht, Steven Petersen and Joseph Culver: High-Density Diffuse Optical Tomography during Movie Viewing: Response Reproducibility and Functional Mapping
11:45-12:00 Frederic Lange, Luke Dunne, Ilias Tachtsidis: Evaluation of Hemoglobin and Cytochrome using a Broadband Time Resolved NIRS system
12:00-12:15 David Highton, Danial Chitnis, Phong Phan, Robert J Cooper, Simone Quaggia, Ilias Tachtsidis, Nicholas Everdell, Jeremy Hebden, Martin Smith, Clare Elwell:
Multiwavelength Diffuse Optical Tomography to Resolve Cytochrome C Oxidase
12:15-12:30 Dominik G. Wyser, Olivier Lambercy, Felix Scholkmann, Martin Wolf, Roger Gassert: A wearable fNIRS device for measuring human brain activity in everyday environments

12:30-1:30 Lunch (and Board Meeting)

1:30-3:00 Poster session 6

3:00-4:30 Neurocognition [chairs: Fumitaka Homae & Felix Scholkmann]

3:00-3:30 Invited talk
Frederic Dehais: Monitoring human performance under realistic operational settings

3:30-3:45 Hemel Modi, Harsimrat Singh, Thanos Athanasiou, Guang-Zhong Yang, Ara Darzi, Daniel Leff: Random Effect Modelling of Prefrontal Cortical Haemodynamics to Determine the Influence of Surgical Expertise on Executive Control during Temporal Stress in the Operating Room

3:45-4:00 Guillermo Borragán, Céline Guillame, Hichem Slama, Carlos Guerrero-Mosquera, Philippe Peigneux: Performance decrease associated to cognitive fatigue is regulated by connectivity disruption more than reduced activity

4:00-4:15 Joy Hirsch, J. Adam Noah, Xian Zhang, Swethasri Dravida, Ilias Tachtsidis: Identification of Neural Systems Involved in Interpersonal Eye-to-Eye Contact: An fNIRS Hyperscanning Investigation

4:15-4:30 Anna Gerega, Stanislaw Wojtkiewicz, Piotr Sawosz, Lukasz Dziuda, Mariusz Krej, Paulina Baran, Krzysztof Kowalczuk, Roman Maniewski, Adam Liebert: fNIRS-based methodology for assessment of tolerance for reduced brain perfusion in air force pilots using lower body negative pressure test

4:30-5:00 Closing remarks
Joseph Culver, co-chair

POSTER PROGRAM

Oct 14th FRIDAY
Poster Sessions 1 & 2

2 Antonio Chiarelli, Edward Maclin, Kathy Low, Monica Fabiani and Gabriele Gratton: Mapping the effective attenuation coefficient of the human head: A multi-distance approach applied to high-density optical recordings

7 Hideyuki Taura and Amanda Taura: fNIRS case studies tracking L2 proficiency development

9 Blanca Marin Bosch, Aurelien Bringard, Guido Ferretti, Sophie Schwartz and Kinga Igloi: The effect of physical exercise on memory, a NIRS study
Quan Zhang, Vladimir Ivkovica, Gang Hu and Gary Strangman: *Ambulatory diffuse optical tomography and multi-modality physiological monitoring system and applications*

Stefania Lancia, Marika Carrieri, Marco Ferrari and Valentina Quaresima: *Could “Corsi Block Tapping test” be considered a real working memory task?*

Rachida El Kaddouri, Annabel Nijhof, Jelle Demanet, Marcel Brass and Roeljan Wiersema: *The Role Of The Temporo-Parietal Junction In Implicit Mentalizing*

Amir Gandojbakhche, Elizabeth Smith, Afruz Anderson, Audrey Thurm and Fatima Chowdhry: *Lateralization and Cerebral Hemodynamics at Rest in Toddlers at Risk for Language Delay*

Masashi Kiguchi, Tsukasa Funane, Takashi Numata and Hiroki Sato: *Optical module with SoC for wearable fNIRS system*

Sigita Venclove, Osvalidas Ruksenas and Algis Daktariunas: *Gender Differences In Frontal Lobe Hemodynamic Response During Cognitive Task Performance*

Ross T Aitchison, Uma Shahani, Laura M Ward, Graeme J Kennedy, Xinhua Shu and David C Mansfield: *Haemodynamic Response in Diabetes: An fNIRS Study of the Visual Cortex*

Juanning Si, Xin Zhang, Yujin Zhang and Tianzi Jiang: *Hemispheric differences of hemodynamic responses during visual stimulation with graded contrasts*

Evelyne Mercure, Sarah Lloyd-Fox, Mark H. Johnson and Mairead MacSweeney: *Influence of early language experience on brain activation to language: A study of hearing infants with Deaf mothers*

Ahmet Omurtag, Haleh Aghajani and Hasan Onur Keles: *Classifying the Brain’s Functional Status in Verbal Fluency Task: EEG+fNIRS*

Takeaki Shimokawa, Toshihiro Ishii, Yoichiro Takahashi, Satoru Sugawara, Masa-Aki Sato and Okito Yamashita: *Diffuse optical tomography by using multi-directional sources and detectors*

Muhammad Raheel Bhutta, Keum-Shik Hong and Seong-Woo Woo: *Development of portable fNIRS, EEG and tDCS system for real time brain monitoring during rehabilitation*

Tanja Dragojevic, Joseph L. Hollmann, Hari M. Varma, Claudia P. Valdes, Joseph P. Culver, Carles Justicia and Turgut Durdurian: *Three-dimensional blood flow imaging in small animals with speckle contrast optical tomography*

Evgenii Kim, Eloise Anguluan and Jae Gwan Kim: *Monitoring cerebral hemodynamic change during transcranial ultrasound stimulation using near infrared spectroscopy*

Alexander von Lühmann, Heidrun Wabnitz, Tilmannn Sander and Klaus-Robert Müller: *Miniaturized CW NIRS for integration and hybridization with mobile EEG / ECG / EMG and Accelerometer*

Kourosh Zare, Mohammad Ali Ansari and H. Sahraee: *The study of prefrontal cortex activation with fNIRS during video gaming*

Seung-Ho Paik, Zephaniah Phillips V and Beop-Min Kim: *A portable, multi-channel fNIRS system for prefrontal cortex: Preliminary study on neurofeedback and imagery tasks*

Paul Burgess, Clarisse Aichelburg, Paola Pinti, Frida Lind, Sarah Power, Elizabeth Swingler, Arcangelo Merla, Sam Gilbert, Illias Tachtidis and Antonia Hamilton: *Prefrontal activation differences associated with social vs. non-social prospective memory in a naturalistic setting.*

Thien Nguyen, Olajide Babawale, Hanli Liu and Jae Kim: *Exploring brain functional connectivity in resting state and during sleep using functional near infrared spectroscopy*
Sergio Novi, Alex Carvalho, Rodrigo Forti, Clarissa Yasuda and Rickson Mesquita: \textit{The complex brain: characterizing NIRS-based networks at rest with complex systems' approaches}

Fares Al-Shargie, Tong Boon Tang, Nasreen Badruddin and Sarat Dass: \textit{Prefrontal cortex connectivity under neutral-control and stress condition using fNIRS}

Sabrina Brigadoi, Jessica Dunn, Robert J. Cooper and Adam P. Gibson: \textit{A 4D pediatric head model for diffuse optical imaging of 4.5 to 18.5 years old children}

Lauren Emberson, Stephen Crosswhite, James Goodwin, Andrew Berger and Richard Aslin: \textit{Isolating the effects of surface vasculature in infant neuroimaging using short-distance optical channels: a combination of local and global effects}

Danial Chitnis, Robert Cooper, Simone Quaggia, Laura Dempsey, David Highton, Jeremy Hebden, Clare Elwell and Nicholas Everdell: \textit{MicroNTS: A Fibreless, High-Density Diffuse Optical Tomography System}


Heidrun Wabnitz, Mikhail Mazurenka, Laura Di Sieno, Gianluca Boso, Davide Contini, Alberto Dalla Mora, Alberto Tosi, Wolfgang Becker, Yoko Hoshi, Simone Kühn, Evgeniya Kirilina, Rainer Macdonald and Antonio Pifferi: \textit{Localized cerebral responses and heterogeneity of superficial signals revealed by non-contact scanning time-domain fNIRS}

Jason Sutin, Bernhard Zimmerman, Danil Tyulmankov, Davide Tamborini, Kuan Cheng Tony Wu, Juliette Selb, Alberto Tosi, David Boas, Angelo Gulinatti, Ivan Rech and Maria Angela Franceschini: \textit{Time-Domain Diffuse Correlation Spectroscopy}

Paola Pinti, Clarisse Aichelburg, Frida Lind, Sarah Power, Elizabeth Swingler, Arcangelo Merla, Antonia Hamilton, Sam Gilbert, Paul Burgess and Ilias Tachtsidis: \textit{Real-world neuroimaging: the use of a fiberless and wearable fNIRS system to monitor brain activity in the real-life on freely moving participants}

Susanna Tagliaabue, Laura Di Sieno, Alberto Dalla Mora, Edoardo Martinenghi, Andrea Farina, Turgut Durduran, Alessandro Torricelli and Antonio Pifferi: \textit{Compact 8 channels time-domain diffuse optical tomography system based on SiPMs for functional brain imaging}

Meltem Izzetoglu, Lori Severino and Mary Jean Tecce Decarlo: \textit{Brain Based Assessment of Reading Skills in Adolescent Students using fNIRS}

J. Adam Noah, Swethasri Dravida, Xian Zhang and Joy Hirsch: \textit{Deoxyhemoglobin changes in right lateralized DLPFC represent conflict processing in a color-word Stroop task}

Daniel Hyde and Charline Simon: \textit{Functional brain organization for theory of mind in 7-month old infants}

Manob Jyoti Saikia, Mohamadreza Abtahi and Kunal Mankodiya: \textit{Development of a Wireless Wearable fNIRS System}


Shelby Putt, Sobanawartiny Wijeakumar, Robert Franciscus and John Spencer: \textit{The Neural Correlates of Prehistoric Stone Tool Manufacture}

Rebecca Re, Edoardo Martinenghi, Alberto Dalla Mora, Davide Contini, Antonio Pifferi and Alessandro Torricelli: \textit{Fiber-free SiPM detectors for TD fNIRS: in-vivo demonstration}
157 Chuen Wai Lee, Maria Chalia, Laura Dempsey, Topun Austin and Rob Cooper: Investigating superficial layer effects on fNIRS signals in term age infant
163 Lorenzo Spinelli, Andrea Farina, Tiziano Binzoni, Alessandro Torricelli, Antonio Pifferi and Fabrizio Martelli: Statistics of photon penetration depth in diffusive media
165 Cécile Issard and Judit Gervain: Parametric vs permutation tests to analyze newborns fNIRS data: analyzing the same dataset in three different ways
181 Florian Haeussinger, Alexander Mann, Andreas Fallgatter, Ann-Christine Ehlis and Martin Schecklmann: Temporal muscle hemodynamics overlaying cortical fNIRS
184 Matteo Chincarini, Lina Qiu, Alessandro Torricelli, Michela Minero, Nicola Ferri, Isa Fusaro, Massimo Mariscoli and Giorgio Vignola: fNIRS technology applied on animals: a study on sheep
185 Ambika Maria, Kalle Kotilahti, Ilkka Nissilä, Jetro Tuulari and Hasse Karlsson: Studying the processing of affective and non-affective touch in the developing brain of 2 year old children
187 Anna Blasi, Barbara Manini, Sabrina Brigadoi, Rob Cooper, Gareth Barker, Stephen Wastling, Sarah Lloyd-Fox, Mark Johnson and Clare Elwell: Simultaneous fMRI and fNIRS analysis in young infants
188 Stanislaw Wojtkiewicz, Piotr Sawosz, Michal Kacprzak, Anna Gerega, Karolina Bejm, Roman Maniewski and Adam Liebert: High-resolution diffuse optical tomography setup for measurements at quasi-transmission geometry on an adult human head
196 Marisa Biondi and Teresa Wilcox: Increased Cortical Activation to Human Versus Mechanical Hands in Infants
201 Stefano Di Domenico, Marc Fournier, Achala Rodrigo, Mengxi Dong, Richard Ryan, Hasan Ayaz and Anthony Ruocco: Relationship Need Fulfillment Predicts Self-Other Overlap in the Medial Prefrontal Cortex During Self- and Other-Referential Cognition
202 Pardis Kaynezhad and Ilias Tachtsidis: Miniature Broadband NIRS System for Brain Tissue Oxygenation and Metabolism
203 Jessica Gemignani, Randall Barbour and Christoph Schmitz: Improved optode design for efficient hair displacement and fast setup time
207 Dennis Hueber and Beniamino Barbieri: A new instrument for simultaneous frequency-domain NIRS and DCS measurements
210 Zhengchen Cai, Rasheda Arman Chowdhury, Alexis Machado, Thomas Vincent, Giovanni Pellegrino, Amanda Spilkin, Jean-Marc Lina and Christophe Grova: NIRS 3D Reconstruction Based on Maximum Entropy on the Mean (MEM)
211 Terje Gjøvaag, Peyman Mirtaheri, Hilde Sylliaas, Jette Schack, Ane Eggebø, Katrine Svartsrød Grue, Martine Skonnord, Evin Güler and Inger Marie Starholm: Frontal brain activation during heavy resistance exercise with and without the Valsalva maneuver
215 Heloise Auger, Louis Bherer, Étienne Boucher, Richard Hoge, Frédéric Lesage and Mathieu Dehaes: Time-domain Near Infrared Spectroscopy of Extra-cerebral and Cerebral Hemoglobin Concentrations During Incremental Intensity Exercise
216 Victoria Dumont, Daniel Zuba, Sylvain Lebargy, Martina Giovannella, Marc Zabalia, Bernard Guillotis and Nadège Roche-Labarbe: Perception of temporal regularity in tactile stimulation: a diffuse correlation spectroscopy study in preterm neonates
Poster Sessions SATURDAY

3. Antonio Chiarelli, Mark Flecher, Edward Maclin, Kathy Low, Fabiani Monica and Gabriele Gratton: Regional Optical Measures of Cerebrovascular Status Associated with Cortical Volume in Healthy Aging

8. Toshinori Kato: Vector-based analysis of local cerebral activation for quantitative fNIRS study

11. Marika Carrieri, Stefania Lancia, Alessia Bocchi, Marco Ferrari, Laura Piccardi and Valentina Quaresima: The “Key Search Task” activates prefrontal cortex

19. Rosalyn Hithersay, Carla Startin, Robert J Cooper, Clare Elwell and Andre Strydom: Executive functioning and pre-frontal activity in adults with and without Down syndrome: an fNIRS pilot study

20. Fares Al-Shargie, Tong Boon Tang and Masashi Kiguchi: Mental Stress Localization on PFC Subregion Based on fNIRS

22. Emilie Bourel-Ponchel, Mahdi Mahmoudzadeh, Aline Delignières, Patrick Berquin and Fabrice Wallois: Non-invasive, multimodal analysis of cortical activity, blood volume and neurovascular coupling in infantile spasms using EEG-fNIRS monitoring


24. Ling-Chia Chen, Pascale Sandmann, Maren Stropahl, Marc Schoenwiesner and Stefan Debener: Tracking functional reorganization in cochlear implant users with simultaneous EEG-fNIRS

33. Isabel de Roever, Gemma Bale, Robert J Cooper and Ilias Tachtsidis: Investigation of cytochrome-c-oxidase as a more robust marker of frontal lobe activation

39. Andreas J. Fallgatter, Beatrix Barth and Ann Christine Ehlis: NIRS Neurofeedback in ADHD
Mina Nourhashemi, Guy Kongolo, Mahdi Mahmoudzadeh, Sabrina Goudjil and Fabrice Wallois: *CBF - rCMRO2 Interrelation of Neonatal Premature Brain*

Elise Vantroyts, Sofie Boterberg, Herbert Roeyers and Rudy Van Coster: *Screening for mitochondrial dysfunction using functional near-infrared spectroscopy*

Clara Gregori-Pla, Gianluca Cotta, Peyman Zirak, Igor Blanco, Pau Bramon, Ana Fortuna, Anna Mola, Isabel Serra, Mercedes Mayos and Turgut Durduran: *What happens to cerebral hemodynamics during an obstructive sleep apnea?*

Jessica Defenderfer, Anastasia Kerr-German, Mark Hedrick and Aaron Buss: *Auditory cortex activation as measured by fNIRS associated with speech perception in normal hearing adults*

Lauren Emberson, Benjamin Zinszer, Rajeev Raizada and Richard Aslin: *Decoding the Infant Mind: Multichannel Pattern Analysis (MCPA) using fNIRS*

Dominic Oliver, Ilias Tachtsidis and Antonia Hamilton: *The role of parietal cortex in imitation: a study with fNIRS*

Sabrina Brigadoi, Sara Basso Moro, Federica Meconi, Silvia Benavides-Varela, Iulian E. Tampu, Mattia Doro, Paola Sessa, Francesca Simion, Simone Cutini and Roberto Dell’Acqua: *A multi-modal fNIRS/EEG investigation of the fronto-parietal network during audio-visual matching*

Daniel Milej, Androu Abdalamalak, Mamadou Diop and Keith St. Lawrence: *A Subtraction-Based Approach for Enhancing the Sensitivity of Time-Resolved fNIRS*

Kristin Shumaker, Matthew Brook O'Donnell, Ralf Schmaelzle and Emily Falk: *Accuracy, Authenticity and Intersubject Correlation in Storytelling*

Benjamin D. Zinszer, Laurie Bayet, Lauren L. Emberson and Richard N. Aslin: *Decoding semantic representations from fNIRS signals*

Thibaud Gruber, Sasha Frühholz, Coralie Debracque, Kinga Igloi, Blanca Marin Bosch and Didier Grandjean: *Human recognition of emotions in voices: a fNIRS study*

David Davies, Michael Clancy, Z Su, Sam Lucas, John Bishop, Peter Hansen, Antonio Belli and Hamid Dehghani: *A Point of care FD NIRS device equivalent to fMRI in detecting clinically relevant physiological changes*

Vrinda Kalia, Bryan Vonder Vellen, Kira Osowski, Aaron Luebbe and Karthik Vishwanath: *Using fNIRS to Measure Hemodynamic Changes in the Prefrontal Cortex Due to Acute Stress*

Luca Pollonini, Heather Bortfeld and John Oghalai: *PHOEBE: a software tool for optimized guided placement of fNIRS optodes*

Bridget Walsh, Fenghua Tian and Meryem Yucel: *Hemodynamic profiles of speech production in children who stutter*

Shonosuke Kurita, Kazuki Kurihara, Hiroshi Kawaguchi, Shinpei Okawa, Takayuki Obata and Eiji Okada: *Influence of extracerebral blood vessels in subject-specific head models on image reconstruction of diffuse optical tomography*

Cécile Issard and Judit Gervain: *On the use of alternating/non-alternating designs in infant research with fNIRS*

David Perpetuini, Roberta Bucco, Michele Zito and Arcangelo Merla: *Study of memory deficit in Alzheimer’s Disease by means of complexity analysis of fNIRS signal*

Cristine Sortica Da Costa, Michal Placek, Marek Czosnyka, Brenno Cabella, Magdalena Kasprowsicz, Peter Smielewski and Topun Austin: *Complexity of Brain Signals is Associated with Outcome in Preterm Infants*

Michael Clancy, Antonio Belli, David Davies, Zhangjie Su, Samuel Lucas, Stanislaw Wojtkiewicz, Piotr Sawosz and Hamid Dehghani: *Monitoring the Injured Brain -
Using high density near infrared probes and registered subject specific atlas models to improve cerebral saturation reconstruction accuracy

Sobanawartiny Wijeakumar, John Spencer and Vincent Magnotta: Age-related changes in visual working memory for multiple object features

Meltem Izzetoglu, Shadi Malaeb, Niraj Arora, Erol Veznedaroglu and Baruch Ben Dor: Near Infrared Spectroscopy Based Non-Invasive Cerebral Edema Monitoring System

Chris C Duszynski, Lia M Hocke, Brian W Benson and Jeffrey F Dunn: fNIRS measures cortical communication during KINARM robotic assessment

Reyhaneh Nosrati, Joshua Lee, Ermias Woldemichael, Steve Lin, Tom Schweizer and Vladislav Toronov: Development of Hyperspectral Functional Near Infrared Spectroscopy

Irfaan Dar, Nasser H Kashou and Sudarshan R Jadcherla: Assessing Neonatal Cortical and Motor Activation during Swallowing in the NICU

Lia M Hocke, Chris C Duszynski, Chantel T Debert and Jeffrey F Dunn: Could fNIRS be the next concussion assessment tool? Studies of network integrity

Ardalan Aarabi, Viktoriya Osharina and Fabrice Wallois: Assessing the effect of confounding factors on estimates of the NIRS hemodynamic response function using single-type event-related designs – A comparative study between averaging and deconvolution analysis

Chiara Bulgarelli, Carina de Klerk, Victoria Southgate and Antonia Hamilton: Gaze modulates functional connectivity between STS and IFG during a mimicry task in 4-month-old infants: a PPI study on fNIRS data

Ernesto Elias Vidal Rosas, Daniel Coca and Stephen Billings: Reduced-order modelling of light transport in tissue for real-time monitoring of human brain absorption changes using High-Density Diffuse Optical Tomography

Zahra Einalou, Keivan Maghooli, Seyed Kamaledin Setarehdan and Ata Akin: Decision tree using Graph Theory Approach to Functional Connectivity in Schizophrenia

Gemma Bale, Aleh Sudakou, Subhabrata Mitra, Judith Meek, Nicola Robertson and Ilias Tachtsidis: Using near-infrared spectroscopy to measure cerebral blood flow in neonatal brain injury

Lorenzo Spinelli, Lucia Zucchelli, Davide Contini, Matteo Caffini, Jacques Mehler, Ana Fló, Alyssa L. Ferry, Luca Filippin, Francesco Macagno and Alessandro Torricelli: In vivo measure of neonate brain optical properties and hemodinamic parameters by time domain Near Infrared Spectroscopy

Lina Qiu, Alessandro Torricelli, Fabrizio Martelli, Andrea Farina, Lorenzo Spinelli, Alwin Kienle and Adam Liebert: The reliability test of Mesh-based Monte Carlo method for photon migration studies

Peyman Mirtaheri, Jette Schack, Hilde Sylliaas, Inge Marie Starholm, Ane Eggebø, Katrine Svartsrød Grue, Martine Skonnord, Terje Gjøvaag and Evin Güler: The effect of Valsalva maneuver on mean arterial blood pressure and brain activity measured by near infrared spectroscopy

Andreas J. Metz and Ursula Wolf: Comparison of low-frequency oscillations in multi-distance and single-distance functional near-infrared spectroscopy

Clémence Roger, Julie Depraetere and Jeremie Jozefowicz: Identification of the metabolic correlates of the activation/inhibition pattern: a study combining fNIRS and EEG methods

Michael Lührs and Rainer Goebel: A novel Neurofeedback and BCI toolbox for real-time fNIRS: Turbo-Satori
And Doppler Sonography
The Cerebrovascular Haemodynamics Of Neonates Using Frequency Resolved Nirs and Doppler Sonography

Cristen Olds, Luca Pollonini, Heather Bortfeld, Michael Beauchamp and John Oghalai: Cortical activation patterns correlate with speech understanding after cochlear implantation

Yingwei Li, Yunjie Tong, Sinem Erdogan, Kimberly Lindsey, Kenroy Cayetano and Blaise Frederick: A low cost multichannel NIRS spectrometer for monitoring global physiological hemodynamic fluctuations

Randall Barbour and Harry Graber: Hemodynamic Imprinting: A Novel Approach to Disease Detection

Nicholas Barone, Ji Hoon Ryoo and Erin Kamarunas: How we determine baseline measures and its impact on results: A reflective discussion

Sinem Erdogan, Yunjie Tong, Lia Hocke, Kimberly Lindsey, Blaise Frederick: Denoising task related fMRI data with time delay processing of concurrently recorded peripheral NIRS


Arefeh Serafati, Adam T. Eggebrecht, Joseph P. Culver and Tracy M. Burns-Yocum: A novel global metric to detect motion artifacts in optical neuroimaging data

Masahito Mihara, Hiroaki Fujimoto, Hironori Otomune, Yuichi Hiramatsu, Kuni Konaka, Noriaki Hattori, Yoshiyuki Watanabe, Teiji Kawano, Megumi Hatakenaka, Hajime Yagura, Ichiro Miyai and Hideki Mochizuki: FNIRS-mediated Neurofeedback enhances gait recovery after stroke: double-blinded randomized clinical trial

Lindsey Powell and Rebecca Saxe: Identifying a neural predictor of infants’ social preferences

Hasan Ayaz, Sarah Levin, Amanda Sargent, Noah Sideman, Christine Hammond, Lei Wang, Jaime Slonim, Prithvi Narayan, Denah Appelt and Brian Balin: fNIRS based cognitive function assessment following concussion in adolescents

Laurien Nagels-Coune, Niels Reuter, Björn Zierul, Denizhan Kurban, Lars Riecke, Rainer Goebel and Bettina Sorger: Shedding Light on Awareness: Towards Functional Near-Infrared Spectroscopy-based Detection of Consciousness

Danielle Forster, J Holberton, V Saxton, G Fedai and E Koumoundourou: Modelling The Cerebrovascular Haemodynamics Of Neonates Using Frequency Resolved Nirs And Doppler Sonography

Oct 16th SUNDAY
Poster Sessions 5 & 6

5. Ata Akin: Why prefer partial correlation to compute functional connectivity for fnIRS data?


16. Zhenhu Liang, Lei Cheng, Yue Gu, Yunjie Tong and Xiaoli Li: Depth of anesthesia monitoring based on the multi-channel fnIRS system

27. Maria Arredondo, Xiao-Su Hu, Lara Stojanov, Akemi Tsutsumi, Rachel Wlock and Ioulia Kovelman: Bilingual Children Show Left-Hemisphere Activation During Non-Verbal Attentional Networks

32. Mohamad Issa, Xiao-Su Hu, Silvia Bisconti, Juan San Juan, Ioulia Kovelman, Paul Kileny and Greg Basura: Tinnitus leads to increased brain connectivity in primary auditory and non-auditory brain regions as measured by functional near infrared spectroscopy (fnIRS)

34. Sarah Steele, Christopher Aasted, David Borsook, Lino Becerra, David Boas, Meryem Yucel, Barry Kussman and Peter Kelsey: Frontal Lobe Activations Across Different Levels Of Consciousness

37. Glen Tellis, Cari Tellis, D'Manda Price, Cara Imbalzano, Danielle Spagnuolo, Erin Roberts and Tia Spagnuolo: Using fnIRS to compare hemoglobin concentration changes in typically-fluent-speakers and persons-who-stutter

38. Cari Tellis, Erin Roberts, Tia Spagnuolo, Danielle Spagnuolo, Glen Tellis, Cara Imbalzano and D'Manda Price: Using fnIRS to Assess Brain Changes as a Result of Voice Therapy

42. Borja Blanco, Cesar Caballero Gaudes and Monika Molnar: The influence of bilingual exposure on early brain network development


51. Hoang-Dung Nguyen and Keum-Shik Hong: Real-time adaptive filtering for noise reduction in fnIRS data

52. Cari Tellis, Erin Roberts, Tia Spagnuolo, Danielle Spagnuolo, Glen Tellis, Cara Imbalzano and D'Manda Price: Use of fnIRS in Assessing Motor Learning and Voice


66. Glen Tellis, Cari Tellis, D'Manda Price, Cara Imbalzano, Danielle Spagnuolo, Erin Roberts and Tia Spagnuolo: Using fnIRS to measure cerebral hemoglobin concentration changes of typically fluent speakers using delayed auditory feedback

70. Mojtaba Soltanlou, Christina Artemenko, Thomas Dresler, Ann-Christine Ehlis, Andreas J. Fallgatter and Hans-Christoph Nuerk: The neural correlates of arithmetic complexity in children differ from those in adults: An fnIRS study

74. Sara Basso Moro, Sabrina Brigadoi, Silvia Benavides-Varela, Simone Cutini, Paola Sessa, Francesca Simion and Roberto Dell'Acqua: Cross-modal matching of numerosity is subserved by the left parietal cortex in the developing brain


88. Maria Chalia, Robert J Cooper, Chuen Wai Lee, Laura A Dempsey, Jeremy C Hebbden and Topun Austin: Can diffuse optical tomography provide early detection of perinatal arterial ischaemic stroke (PAIS) at the cot side?
Nicholas Barone, Erin Kamarunas and Christy Ludlow: Changes in Cortical Control for Singing Onset with Increases in Task Difficulty

Aaron Buss and Anastasia Kerr-German: Dimensional label learning drives the development of attention to visual dimensions

Anastasia Kerr-German and Aaron Buss: Neural Dynamics of Selective and Flexible Attention Development

David Davies, Michael Clancy, Z Su, John Bishop, Emma Toman, Sam Lucas, Antonio Belli and Hamid Dehghani: Can a clinically viable Frequency Domain NIRS device reliably detect changes in brain tissue oxygen tension of patients with severe traumatic brain injury?

Felicia Zhang, Richard N. Aslin and Lauren L. Emberson: Investigating auditory prediction in young infants using fNIRS

David Rosenbaum, Katja Hagen, Florian B. Häußinger, Andreas J. Fallgatter, Florian G. Metzger and Ann-Christine Ehlis: State-dependent connectivity in late-life depression

Paola Pinti, Arcangelo Merla, Clarisse Aichelburg, Frida Lind, Sarah Power, Elizabeth Swingler, Antonia Hamilton, Sam Gilbert, Paul Burgess and Ilias Tachtsidis: An extended GLM-based algorithm for recovering functional events in real-world fNIRS neuroimaging outside the lab with freely moving subjects

Bahareh Behboodi, Kyungsoo Kim and Ji-Woong Choi: Eye Blinks Motion Artifact Removal using Kurtosis-based Wavelet Algorithm in Prefrontal Area

Hannah Felicitas Behrendt, Katherine Perdue, Kerstin Konrad and Christine Firk: Investigating neural correlates of face-to-face mother-infant interaction and infant affect regulation in response to maternal cues with the use of real-life display: A pilot fNIRS study

Alex Boldin and Lauren Emberson: Role of Frontal Cortex in Infant Top-Down Sensory Prediction

Shender-Maria Avila-Sansores, Gustavo Rodríguez-Gómez, Carlos Gerardo Treviño-Palacios, Adam Noah, Xian Zhang, Joy Hirsch, Felipe Orihuela-Espina and Ilias Tachtsidis: Manifold based modelling of brain connectivity in fNIRS


Swethasri Dravida, J. Adam Noah, Xian Zhang and Joy Hirsch: Consistency in fNIRS Recordings during Digit-Manipulation Tasks

Luuk van de Rijt, Roos Cartnij, Emmanuel Mylanus, Ad Snik, John van Opstal and Marc van Wanrooij: Speech perception outcome of cochlear implantation predicts cortical activation measured with functional near-infrared spectroscopy

Xian Zhang, J. Adam Noah, Swethasri Dravida and Joy Hirsch: A comparison of fMRI and fNIRS deoxyhemoglobin signals: A global component removal approach

Meryem Yucel, David Harper, Jim Ellison, Tony Fantana and David Boas: Memory encoding assessed by functional Near-Infrared Spectroscopy

Rodrigo Forti, Marilise Katsurayama, Lenise Valler, Victor Hugo Souza, Oswaldo Baffa, Wagner Avelar and Rickson Mesquita: Monitoring critical patients at the neuro-intensive care unit in real-time: how can diffuse optics help?

Guilherme Zimeo Morais, Joana Balardin, Rogério Akira Furucho and João Ricardo Sato: Exploring the correlation between oxygenated and deoxygenated hemoglobin signals

Hama Watanabe, Naoto Takahashi and Gentaro Taga: Hemoglobin phase of oxygenation and deoxygenation (hPod) in preterm- and term-born infants
cochlear implant users Iliza Butera, Erin Nelson and René Gifford: Neural correlates of music perception in cochlear implant users

Cortical Activity Related to Speech Motor Planning and Execution in Adults Who Stutter Bryan Brown, Sobanawaritny Wijeakumar, Patricia Zebrowski and John Spencer: Bayesian fNIRS smooth adaptive deconvolution
Randall Barbour and Harry Graber: Enhanced resting-state dynamics of the hemoglobin signal as a novel biomarker for detection of breast cancer

Randall Barbour and Harry Graber: Factors Influencing the Diagnostic Performance of Breast Cancer Detection by Hemodynamic Imprinting

Silvia Bisconti, Renee Lajiness-O’Neill, Neelima Wagley, Keti Lengu, Tristin Nyman, Ana-Mercedes Flores, Tiffany Andersen, Casey Swick, Annette Richard, Elise Hodges, Xiaosu Hu, Anne-Michelle Tessier and Ioulia Kovelman: Do you know these sounds? Left hemisphere shows greater activation to high frequency language phonotactics in infants but not in adults

Katherine Perdue, Swapna Kumar, Alissa Westerlund, Julia Cataldo and Charles Nelson: Resting State fNIRS with awake infants and children

Kimberly A. Brink, Lindsay C. Bowman, Xiaosu Hu and Henry M. Wellman: Differential activation during mental state reasoning in the temporoparietal junction

Alexis Machado, Thomas Vincent, Zhengchen Cai, Jean Marc Lina, Eliane Kobayashi and Christophe Grova: Robustness of the general linear model to noise misspecification in fNIRS

Gentaro Taga: A model of hemoglobin phase of oxygenation and deoxygenation (hPod) in spontaneous neurovascular and metabolic activity