

Program of the Summer School

“Hands-on fNIRS data analysis for fundamental, applied & clinical research”

Monday, 2nd August 2021

- 14:00-14:30 Welcome
- 14:30-16:00 Why use light to assess brain function? Basics of the methodological approach and potential applications
Lecture by Hellmuth Obrig
- coffee break*
- 16:30-17:15 Brainstorming for a collaborative hands-on paper
Moderation by Philipp Schroeder & Christina Artemenko
- 17:15-18:30 Demonstration of fNIRS data collection
Hands-on session by Baris Yesilyurt
- 20:00 *Online Event*

Tuesday, 3rd August 2021

- 9:00-10:30 Analysis of fNIRS data: techniques, challenges and current trends
Lecture by Felix Scholkmann
- coffee break*
- 11:00-13:00 My first fNIRS analysis
Hands-on session by Felix Scholkmann
- lunch break*
- 14:30-16:00 Experimental Design
Lecture by Simone Cutini (online)
- coffee break*
- 16:30-17:30 Historic developments of fNIRS
Lecture by Andreas J. Fallgatter
- 18:00 *Event Dinner*

Wednesday, 4th August 2021

- 9:00-10:30 Motion artifact correction
Lecture by Sabrina Brigadoi (online)
- coffee break*

11:00-13:00 Application of motion correction techniques to fNIRS signals
Hands-on session by Sabrina Brigadoi (online)

lunch break

14:30-16:00 Supervised and unsupervised decomposition of fNIRS data
Lecture by Alexander von Lühmann & Meryem Yücel

coffee break

16:30-18:30 General linear model and statistical analysis
Hands-on session by Alexander von Lühmann & Meryem Yücel

Thursday, 5th August 2021

9:00-10:30 Hyperscanning with fNIRS
Lecture by Vanessa Reindl

coffee break

11:00-13:00 Meet an expert

lunch break

14:30-16:00 Multimodal integration and multivariate data analysis with fNIRS-EEG
Lecture by Mathias Vukelic & Alexander von Lühmann

coffee break

16:30-18:00 fNIRS-based neurofeedback
Lecture by Ann-Christine Ehlis

Friday, 6th August 2021

9:00-11:00 Best-practice on fNIRS publications
Panel Discussion moderated by Meryem Yücel

coffee break

11:30-13:00 Data Blitz

13:00-14:00 Final Discussion on collaborative hands-on document
Moderation by Philipp Schroeder & Christina Artemenko