



BENESCO Lecture Series on sleep, epilepsy, consciousness and cognition

October 2019 - June 2020

Friday, 12h30 – 13h30, Course Room Neurology, **Intensivbehandlungs-, Notfall- und Operationszentrum (INO), Floor B, Room 118**

Description: The BENESCO lecture series consists of a teaching classes on signal analysis by MATLAB and lectures covering sleep, epilepsy and consciousness research from bench to bedside. Expert speakers present state of the art research and newest findings in their field of expertise. Moreover, they provide you with one paper to read as an introduction to the topic that will be the basis for the multiple choice exam. During the teaching classes on *signal analysis by MATLAB* you will be introduced to current tools and methods used to acquire brain signals. Each lecturer will provide you with programming code and exercises that you solve individually.

Credits: 2 ECTS points. For credits you have to attend 70 % of the teaching classes and lectures and to pass a multiple choice exam by the end of the two semesters. Multiple choice questions are based on the literature provided for each lecture and teaching class and on the contents taught during lectures and classes.

Registration: by e-mail to cornelia.klopfenstein@insel.ch, please indicate full name, PHD-program and supervisor

Organizers: Antoine Adamantidis, Claudio Bassetti, Simone Duss, Kaspar Schindler, Maya Ringli, Carolina Gutierrez, Roger Hunziker, Cornelia Klopfenstein

PROGRAM fall term

Date	Type	Topic	Speakers
04.10.2019	<i>intro</i> 16:00	Welcome and organisation	Maxime Baud
	16:15	"The Neuroscience of Human Speech"	Dr. Edward Chang, Professor of neurological surgery, University of California, San Francisco
11.10.2019	Lecture	Titel angefragt 13.05.19 + 27.06.2019 Chair: Antoine Adamantidis	Prof. Camilla Bellone, Neurosciences, University of Geneva
18.10.2019	Lecture	«Astrocyte- synapse interaction: a tripartite view on cortical circuit development» Chair: Antoine Adamantidis	Paola Bezzi, DNF, Department of Fundamental Neurosciences, University of Lausanne
25.10.2019	Lecture	"Sleep and the Interactions in Multiple Memory Systems" Chair: Christoph Nissen	Prof. Dr. Steffen Gais, Institut für Medizinische Psychologie und Verhaltensneurobiologie Eberhard-Karls-Universität, Tübingen
01.11.2019	PHD Defense	"Microsleep episodes" Chair: Johannes Mathis	Anneke Hertig-Godeschalk

08.11.2019	Lecture	Titel angefragt 13.05.19 + 27.06.2019 Chair: Antoine Adamantidis	Prof. Daniel Huber, Neurosciences, University of Geneva
15.11.2019	Lecture	"Dynamics of large-scale brain network activity: perspectives for cognitive & clinical neurosciences" Chair: Maxime Baud	Prof. Dimitri Van De Ville, University of Geneva and Ecole Polytechnique Fédérale de Lausanne
22.11.2019	Lecture	"The encoding of aversive states in habenular circuits" Chair: Antoine Adamantidis	Dr. Manuel Mameli, Department of Fundamental Neuroscience, University of Lausanne
29.11.2019	Lecture	"Stereotyped network waves in the medial entorhinal cortex" Chair: Antoine Adamantidis	Prof. Dr. Flavio Donato, Biozentrum, University of Basel
04.-06.12.2019	symposium	Berner Schlaf-Wach-Tage und ZEN-Symposium - Auditorium Ettore Rossi/Langhans Hörsaal, Inselspital	Coordination: Prof. J. Mathis, Prof. M. Gugger, Prof. A. Adamantidis, Prof. C. L. Bassetti, MD M. Schmidt
13.12.2019	Class	"EEG-derived functional networks and graph theory with Matlab"	Dr. Dr. med. Frédéric Zubler, Sleep-Wake-Epilepsy-Center, Neurology Department, Inselspital Bern
20.12.2019	Lecture	"Sleep related biomarkers in psychiatry" Chair: Martin Hatzinger	PD Dr. med. Thorsten Mikoteit, Psychiatric Services Solothurn and Medical Faculty, University of Basel

PROGRAM spring term

21.02.2020	Lecture	"Dynamic tracking of visual speech in human auditory cortex revealed by intracranial EEG" Chair: Maxime Baud	Pierre Mégevand, MD, PhD, Senior research associate, Dept. of basic neurosciences Faculty of medicine, University of Geneva
28.02.2020	Class	"Simple Differential Equations - An Introduction using Matlab"	Christian Rummel, Support Center for Advanced Neuroimaging, Inselspital Bern
01.04.2020		"Sleep Science Winter School 2020"	
06.03.2020	Lecture	"From Sleep Misperception to Paradoxical Insomnia" Chair: Markus Schmidt	Prof. Dr. Mauro Manconi, Sleep and Epilepsy Centre of the Neurocentre, hospital of Lugano
13.03.2019	class	"Correlation Analysis of Multivariate Time Series"	Christian Rummel, Support Center for Advanced Neuroimaging, Inselspital Bern
20.03.2020	Lecture	Titel angefragt 14.05.19 + 27.06.19 Chair: Antoine Adamantidis	Laurence Bayer (PhD), Biologiste, Centre de médecine du sommeil, Dpt. des spécialités de médecine, Chêne-Bourg
27.03.2020	Class	"An introduction to fundamentals of nonlinear signal analysis"	Prof. Dr. Ralph Gregor Andrzejak, Dept. of Information & Communication Technologies, University Pompeu Fabra, Barcelona
03.04.2020	Lecture	"Multisensory bodily processing and Self-Consciousness" Chair: Daniel Erlacher	Dr. med. Lukas Heydrich, MD PhD, FMH Neurologie, Research Fellow, Universitätsklinik für Neurologie, Abteilung Psychosomatik, Core Lab, Inselspital Bern
10.04.2020		Karfreitag / Good Friday	

17.04.2020	<i>Lecture</i>	“Large-scale epileptic networks in focal epilepsies: development and mechanisms” Chair: Maxime Baud	Dr. Charles Quairiaux, Department of Basic Neurosciences, University of Geneva
24.04.2020	<i>Lecture</i>	“Recent insights into remote fear memory attenuation” Chair: Antoine Adamantidis	Johannes Gräff, Brain Mind Institute School of Life Sciences, Ecole Polytechnique Fédérale de Lausanne (EPFL)
01.05.2019	<i>IRC Lecture</i>	“Spontaneous brain connectivity and EEG microstates”	Prof. Dr. Thomas König, University Hospital of Psychiatry, Psychiatric Electrophysiology Unit, Translational Research Center, Bern
15.05.2020	<i>Lecture</i>	"Engram patterns: neural codes for memory and navigation" Chair: Christoph Nissen	Prof. Dr. Nikolai Axmacher, Abteilung Neuropsychologie, Institut für Kognitive Neurowissenschaft, Fakultät für Psychologie Ruhr-Universität Bochum
22.05.2020		Auffahrt	
05.06.2020	<i>exam</i>		