

# *Czech - Austrian Magnetic Resonance Workshop 2017*

**May 15 - 17, 2017**

**Semmering, Austria**



**Organizers: Daniel Jiráček, Martin Krššák**

**Venue: Alpenhof Semmering, Am Alpenhof 1, 8685 Steinhaus am Semmering, Austria**

**GPS: N 47.62.930° , E 15.80.652° <http://www.alpenhofhotel.eu/>**



**Supported by  
„Aktion AUT - CZE 78p10“  
and by  
Siemens Healthineers**



## Monday, May 15, 2017

---

### 15:00 Welcome

### 15:15 - 17:45 Scientific session 1

**Heckova Eva** Estimation and real-time correction of motion and scanner-instability artifacts during 3D-GABA-edited MRSI in Parkinson's, Mild Cognitive Impairment and young/elderly controls

**Bagga Deppika** Probiotics and Human brain: Neuroimaging perspectives

**Krumpolec Patrik** Effect of 3-month physical training on volume of hippocampus. Verification of 2 methods of measurements.

**Pirpamer Lukas** Bound pool mapping

**Borsodi Florian** Quantitative MRI in ALS

**Söllradl Martin** Myelin water mapping

**Jirik Radovan** Quantitative MRI of perfusion

**Helms Gunther** Implicit MT effects in fast MRI with variable flip angles.

### 19:30 - 21:00 Late Evening session / Site Introductions

**Hajek Milan** Institute for Clinical and Experimental Medicine Prague

**Bogner Wolfgang** High Field MR Centre, Dpt. Biomedical Imaging and Image guided Therapy, Medical University of Vienna

**Ropele Stefan** Neuroimaging Group, Medical University Graz

**Starcuk Zenon jr.** Institute for Scientific Instruments Czech Academy of Science: quantitative MR & Czech-BioImaging service. / Metabolite quantitation by jMRUI - news in

version 6.0 (QUEST-MM, NMRScopeB)

**Stollberger Rudolf** Institute of Medical Engineering, University of Technology Graz & cooperation Institute of Mathematics and Scientific Computing, Karl Franzens University Graz

**Windischberger Christian** High Field MR Centre, Center for Medical Physics and Biomedical Engineering, Medical University of Vienna

---

**Tuesday, May 16, 2017**

---

**08:30 - 10:10 Scientific session 2**

**Klose Uwe** Examination of patients with low-grade gliomas with PET and different advanced MR techniques.

**Birkl Christoph** Iron mapping in postmortem brain

**Strasser Johannes** MR elastography of the brain

**Tintera Jaroslav** Atrial fibrillation may result in decreased local cerebral perfusion - a pilot study.

**Tik Martin** Measuring and manipulating brain network activity using TMS/fMRI

**Hummer Allan** High-resolution fMRI of retinal functions and dysfunctions

**10:10 - 10:30 Coffee Break**

**10:30 - 12:30 Scientific session 3**

**Eckstein Korbinian** Bipolar multi echo gradient echo acquisitions - the influence and correction of gradient timing errors and SNR efficiency in comparison with monopolar readout

**Vit Martin** Double-tuned RF coil for phantoms and mice imaging

**Niess Fabian** Multinuclear Interleaving

**Pfleger Lorenz** Quantitative 31P MRSI of the liver

**Blahova Tereza** Short term dietary interventions and hepatic fat. A pilot MR study

**Korinek Radim** Implementation of new 3-PD technique at ultra-high magnetic field

**Hager Benedikt** Collagen fiber to magnetic field angle dependence in human meniscus – a preliminary T2\* MR- microscopy study at 7T

**14:00 - 18:00 Excursion, Discussion in small, project specific, groups**

---

**Wednesday, May 17, 2017**

---

**08:30 - 10:30 Scientific session 4**

**Aigner Christoph** RF-Pulse Design with Physical Constraints

**Nohava Lena** RF pulse optimization for pTx

**Lesch Andreas** Highly accelerated B1-Mapping using variational Methods

**Maier Oliver** Accelerated Model-Based Parameter Quantification

**Martin Adrian** Variational Methods for Magnetic Resonance Imaging Problems

**Hingerl Lukas** Concentric Circle Readout Trajectories with Density Weighted Acquisition

**Moser Philipp** Spiral-accelerated short-TE MRSI with B1-insensitive 1D-semiLASER localization and real-time motion correction at 7T

**10:30 - 11:00 Coffee Break**

**11:00 - 12:30 Scientific session 5**

**Jirak Daniel** A novel multimodal mannan-based polymer system suitable for tumor and metastasis diagnosis

**Herynek Vit** Relaxivity anomalies of ferromagnetic nanoparticles

**Cräuter Corina** Pixel-wise quantification of myocardial blood flow from DCE-MRI: the impact of deconvolution method

**Korner Tito** Towards online Image based detection of heart motion using ICE

**Poblador Esau** Interleaved B<sub>0</sub>-mapping during dynamic Creatine-CEST for correction of temporarily fluctuating B<sub>0</sub>

**12:30 - Adjourment / Lunch**



Photo by Marcel Rebro / [www.rebro.sk](http://www.rebro.sk)

## List of Participants

	<b>Nachname</b>	<b>Vorname</b>	<b>Affiliation</b>
1	Aigner	Christoph	TU Graz
2	Bachrata	Beata	MU Wien
3	Bagga	Deepika	Karl-Franzens Uni Graz
4	Berg	Andreas	MU Wien
5	Birkl	Christoph	MU Graz
6	Blahova	Tereza	UK
7	Bogner	Wolfgang	MU Wien
8	Borsodi	Florian	MU Graz
9	Burian	Martin	UK
10	Cardoso	Pedro	MU Wien
11	Dezortova	Monika	UK
12	Drobny	Miloslav	UK
13	Eckstein	Korbinian	MU Wien
14	Frass	Roberta	MU Wien
15	Galisova	Andrea	UK
16	Graf	Christina	Karl-Franzens Uni Graz
17	Hager	Benedikt	MU Wien
18	Hajek	Milan	UK
19	Heckova	Eva	MU Wien
20	Helms	Gunther	Lund University
21	Herynek	Vit	UK
22	Hingerl	Lukas	MU Wien
23	Hummer	Allan	MU Wien
24	Jirak	Daniel	UK
25	Jirik	Radovan	ISI CAS, Brno
26	Jiratova	Marketa	UK
27	Klose	Uwe	Uni Tübingen
28	Korinek	Radim	ISI CAS, Brno
29	Körner	Tito	MU Wien
30	Kräuter	Corina	TU Graz
31	Krssak	Martin	MU Wien
32	Krumpolec	Patrik	MU Wien
33	Laistler	Elmar	MU Wien
34	Lesch	Andreas	TU Graz
35	Maier	Oliver	TU Graz
36	Martín	Adrián	KFU Graz
37	Melinc	David	MU Wien
38	Meyerspeer	Martin	MU Wien
39	Moser	Philipp	MU Wien

40	Motyka	Stano	MU Wien
41	Niess	Fabian	MU Wien
42	Nohava	Lena	MU Wien
43	Pfleger	Lorenz	MU Wien
44	Pirpamer	Lukas	MU Graz
45	Poblador	Esau	MU Wien
46	Robinson	Simon	MU Wien
47	Reiter	Gert	Siemens Healthineers Austria, Graz
48	Ropele	Stefan	MU Wien
49	Rund	Armin	KFU Graz
50	Rydlo	Jan	UK
51	Schmid	Albrecht Ingo	MU Wien
52	Sedivy	Petr	UK
53	Söllradl	Martin	MU Graz
54	Starcuk	Zenon	ISI CAS, Brno
55	Stollberger	Rudolf	TU Graz
56	Strasser	Johanes	MU Graz
57	Sumtinger	Jürgen	MU Wien
58	Tik	Martin	MU Wien
59	Tintera	Jaroslav	UK
60	Vit	Martin	UK
61	Windischberger	Christian	MU Wien
62	Woletz	Michael	MU Wien



By H. Raab (User:Vesta) (Own work) [CC BY-SA 3.0  
(<http://creativecommons.org/licenses/by-sa/3.0/>)], via Wikimedia Commons