

# *Czech - Austrian Magnetic Resonance Workshop 2019*

**September 18 - 20, 2019**

**Frein an der Mürz, Austria**



**Organizers:** Daniel Jirák (IKEM), Martin Kršák (MUW)

**Venue:** Freinerhof, 8694 Frein an der Mürz Nr.2, Austria

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## Wednesday, Sept 18, 2019

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**14:45 Coffee starter**

**15:15 Welcome**

**15:30 – 17:30 Scientific session 1**

**Reiter Ursula / Reiter Gert (Graz)** Current Trends in Cardiac MR (25 + 5 min)

**Kräuter Corina (Graz)** Extraction of the mitral valve vortex ring from 4D flow MRI (12 + 3 min)

**Albrecht Ingo Schmid (Wien)** Cardiac MRS development for/at 7T (12 + 3 min)

**Körner Tito (Wien)** Real-time respiratory motion correction and phantom development at 7T (12 + 3 min)

**Jirák Daniel (Prague)** Injectable fluorinated polymer implants as  $^{19}\text{F}$  MR probe with tunable biodegradability (12 +3 min)

**Jiřík Radovan (Brno)** Small-animal DCE-MRI using golden-angle compressed-sensing techniques (12 +3 min)

**19:30 - ... Late Evening session / News from the World**

**Vojtěšek Lubomír / Kudlička Petr (Brno)** Introduction of MAFIL (Mutlimodal and Functional Imaging Laboratory) - Overview of realized projects and tasks

**Hájek Milan (Prague)** New equipment in Prague: VIDA & mq-Profiler



## Thursday, Sept 19, 2019

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### 8:45 - 10:30 Scientific session 2

**Groeger Adriane (Siemens Healthineers; Erlangen)** Actual possibilities for spectral evaluation at Siemens systems (20 min)

**Pšorn Tomáš (Brno)** py-bruker: Towards Conscious Bruker Data Representation and Manipulation (12 + 3 min)

**Burian Martin (Prague)** Is the hepatic fatty-acid chain length dependent on the hepatic fat content? (12 + 3 min)

**Ruth Steiger (Innsbruck)** TBA/ MR Activities in Innsbruck (12 + 3 min)

**Dražanová Eva (Brno)** Cerebral blood perfusion detected by ASL MRI in preclinical research (12+3 min)

### !!!! Newly introduced – Power Pitch Presentations and Poster Discussion!!!!

**Pavlova Iveta (Brno)** Comparison of MRS in vitro / in vivo on a 9.4T Bruker scanner

**Benčíková Diana (Wien)** In vitro and in vivo validation of radial fast spin echo based T2 mapping of the liver

**Czerny Raphaela (Wien)** Flexible coaxial RF coils with multiple gaps and turns

### 10:30 – 11:00 Poster Discussion & Coffee Break

### 11:00 - 12:45 Scientific session 3

**Nohava Lena (Wien)** Wearable electronics: a flexible coil vest for MR mammography (BRACOIL) (12 + 3 min)

**Gruber Bernhard (Wien)** On-coil B0 shimming with flexible coils - first perspectives (12 + 3 min)

**Maier Oliver (Graz)** Accelerated whole brain 3D parameter quantification (12 + 3 min)

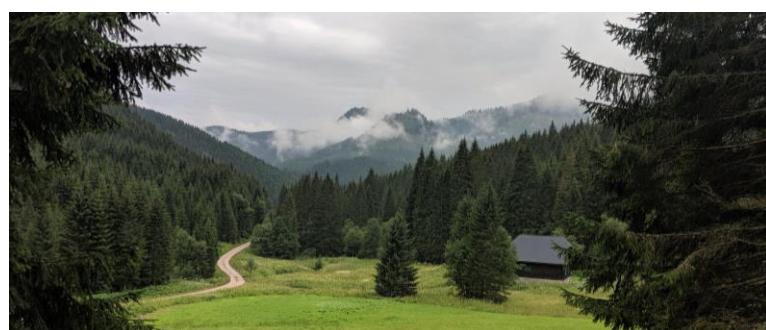
**Birkl Christoph (Graz)** Effect of iron extraction on quantitative MRI of post mortem human brain tissue (12 + 3 min)

**Dezortová Monika (Prague)** Wilson disease and its forms in MR (12 + 3 min)

**Tinauer Christian (Graz)** Relevance-guided Feature Extraction for Alzheimer's Disease Classification (12 + 3 min)

**Lipka Alexandra / Hečková Eva (Wien)** Ultra high-field MRSI in Multiple Sclerosis (12 + 3 min)

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



## Friday, September 20, 2019

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### 08:45 - 10:30 Scientific session 4

**Christoph Marx (Ergospect; Innsbruck)** TBA /Ergometers and Applications (20 + 5 min)

**Niess Fabian (Wien)** Functional and metabolic heterogeneity along human calf muscles simultanoeusly measured with  $^{31}\text{P}$  MRS/ $^1\text{H}$  ASL MRI at 7T (12+3 min)

**Šedivý Petr (Prague)** Origin of the  $^{31}\text{P}$  MR signal at 5.3 ppm in patients with critical limb ischemia (12+3 min)

**Wampl Stephan (Wien)** In vivo Cardiac  $^{31}\text{P}$  MRS at 7T (12+3 min)

**Ziolkowska Natalia (Prague)** New class of biodegradable responsive phosphorus-containing contrast agent for  $^1\text{H}/^{31}\text{P}$  MR (12+3 min)

**Galabov Radek (Prague)** Comparison of Phase Contrast MRI Measurements of Turbulent Flow In Vitro and Lattice Boltzmann Method of Computational Fluid Dynamics (12+3 min)

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

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

**Latta Peter (Brno)** A simple compensation method for improved half pulse excitation profile with a rephasing gradient (12+3 min)

**Lazen Philipp (Wien)** Simulation of MR Pulses and Overdiscrete Reconstruction in MRSI (12+3 min)

**Söllradl Martin (Graz)** Gradient echo modelling with macroscopic field variations and large flip angles (12+3 min)

**Bachratá Beata (Wien)** Simultaneous Multi-Metabolite Imaging: using multi-band principles to generate separate images of fat and water (12+3 min)

**Ehrman Andreas (Wien)** Super-resolution reconstruction in fMRI and QSM (12+3 min)

**David Bancelin (Wien)** Physiological noise in brainstem fMRI - Plan of my Project (12+3 min)

**12:30 -        Adjournment / Lunch**



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