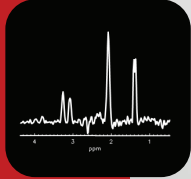


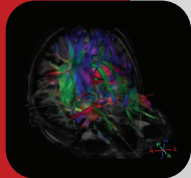


# GyroTools

[www.gyrotools.com](http://www.gyrotools.com)

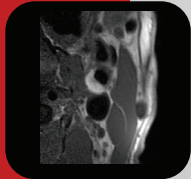


## Application Training On-site



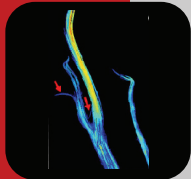
### Spectroscopy

Cardiac, Breast and Prostate, 1H, 31P



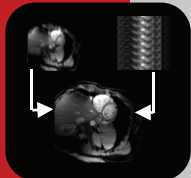
### DTI + fMRI

Setup, Protocol optimization, Fibertracking, SPM



### Carotid Imaging

Black-blood optimization (IR, Diffusion)  
3D flow, Particle path and streamline visualization



### Cardiac Imaging

Optimizing protocols for k-t BLAST, Perfusion, Late-gadolinium enhancement, 3D flow, Particle path and streamline visualization

**Individual trainings are tailored to the specific needs of the site.**

**Fee:** 1000 EUR/day

**Contact:** [www.gyrotools.com](http://www.gyrotools.com)



# GyroTools

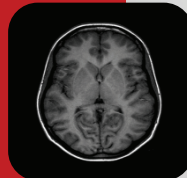
[www.gyrotools.com](http://www.gyrotools.com)



## Courses

### Research Tools and Data Handling Course

September 8-12, 2008  
Zurich, Switzerland



### Spectroscopy Application Course

October 6-10, 2008  
Zurich, Switzerland



## Training On-site

### Spectroscopy

(Prostate, Breast, Cardiac)

### DTI + fMRI

(Protocol optimization, Fiber tracking)

### Carotid Imaging

(Black-blood, 3D Qflow)

### Cardiac Imaging

(k-t BLAST Perfusion, LGE, Qflow)

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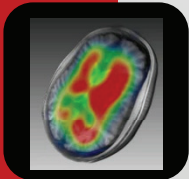
Waldstrasse 4, CH-8400 Winterthur  
Switzerland

Tel. +41 44 632 3894 – Fax +41 44 632 1193  
[www.gyrotools.com](http://www.gyrotools.com) – [courses@gyrotools.com](mailto:courses@gyrotools.com)

GyroTools Ltd.

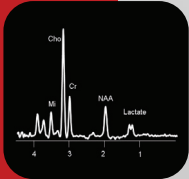
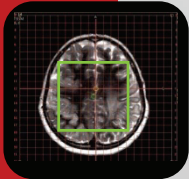
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## Spectroscopy Application Course

This 5-day course aims at radiologists, technicians and Philips applications specialists – but is also of interest to MR physicists in a clinical environment. After attending this course the participant should understand the basic principles and techniques of MRS, be able to run MRS exams in different body parts, be able to choose the appropriate parameters for the specific application and clinical objective, distinguish artifacts from pathology and have some first practice in reading and interpreting MRS spectra from clinical exams. Four hours of hands-on practice per day on both 1.5T and 3T Philips systems are included.



- Lectures:**
- Basics of MRS
  - Localization Techniques
  - Suppression Techniques
  - Workflow and Parameters
  - Postprocessing/Quantification
  - SpectroView (Philips)
  - Offline Tools (jMRUI, LCModel)
  - Spectroscopic Imaging
  - Body I: Prostate
  - Body II: Breast, Muscle, Liver
  - MRS at 3T
  - 31P MRS: basics and techniques
  - 31P MRS: applications
  - Basic Neurochemistry
  - MRS in Clinical Diagnosis
  - MRS in Clinical Research
  - Reading of MRS Cases
  - Artifacts
  - Introduction to SENSE and SENSE-SI

- Hands-on:**
- Single Voxel 1H MRS in Brain
  - 2D and 3D MRSI, TSI in Brain
  - SV/3D MRSI in Prostate
  - Breast 1H MRS
  - Muscle 1H MRS
  - Liver 1H MRS
  - 31P MRS in vivo
  - Post-processing/Quantification
  - jMRUI and LCModel
  - Reading with Radiologist

**Course fee:** 2900 EUR

**Registration:** Online at [www.gyrotools.com](http://www.gyrotools.com)

## Research Tools and Data Handling Course

Targeting basic and clinical scientists, this 5-day course provides background knowledge and hands-on of several research options available on the Philips Achieva platform to allow the temporary modification of pulse sequences, diagnosis of image artifacts, handling of different image and research data formats, connecting hardware to the system, reconstructing images from MR raw data using ReconFrame and post-processing using the PRIDE platform.

### Monday:

- Introduction of system architecture
- Sequence development
- Pulse sequence and image artifact inspection
- Exercise: Sequence development and inspection

### Tuesday:

- Image reconstruction / ReconFrame
- Standard file formats in Imaging and Spectroscopy
- Tools to import and process exported data
- Data anonymization
- Introduction to Perl
- Exercise: Image converter in Perl

### Wednesday:

- Introduction of system hardware
- Connecting 3rd party and own coils
- Safety aspects
- Exercise: Setting up fMRI hardware
- Database queries using ISQL
- Exercise: ISQL

### Thursday:

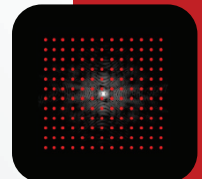
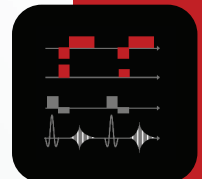
- Introduction of IDL
- PRIDE and DRIN
- Exercise: PRIDE project

### Friday:

- Advanced image reconstruction
- Exercise: ReconFrame

**Course fee:** 2900 EUR

**Registration:** Online at [www.gyrotools.com](http://www.gyrotools.com)



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