



PMOD Technologies
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PMOD Training Workshop

March 15 - 16, 2010

Zurich, Switzerland

www.pmod.com/technologies/course/course.html

Overview

The aim of PMOD's biannual training workshops (usually held in March and September each year) is to teach the participants the effective use of the major PMOD tools. Brief presentations will outline the principles behind the different types of data analysis. They will be followed by live demonstrations. Finally, ample time will be available for individual practice based on a workbook and for interacting with the trainers.

The participants are required to bring their own notebooks. They will obtain a USB flash key with the latest PMOD version as well as training data sets. PMOD can be started directly from the key, such that the configuration of the notebook will remain untouched. As a courtesy, the key can be taken home and will work for another two months. This will give the participants the opportunity to complete their studies if needed, and to try the PMOD tools on their own data.

Educational Objectives

Upon completion of the training the participants will be able to:

- Exploit the wealth of image presentations and layouts
- Apply the filtering and image processing tools
- Define Volumes-of-Interest (VOIs) using manual and automatic methods and calculate their statistics
- Calculate time-activity curves and submit them to the kinetic modeling tool
- Understand the different types of models and apply them in the general and pixel-wise modeling tool
- Assess the identifiability of kinetic model parameters
- Match multi-modal images of a single patient by manual and automatic methods
- Spatially normalize a brain image to a brain atlas
- Select among the available image fusion techniques
- Perform pixel-wise algebra with matched series, e.g. to calculate a perfusion reserve
- Apply segmentation techniques to extract organ surfaces and render them in 3D
- Project functional information as a texture onto a segmented organ surface

Target Audience

The training workshop is aimed at participants with a basic to intermediate skill level. It is primarily designed for existing and prospective PMOD users who:

- Started using PMOD recently
- Wish to extend their knowledge and interact with the developers of the software
- Would like to evaluate modules which are not available in their acquired installations

Contents

Short Background Presentations

The presentations will provide basic information for the purpose of understanding program operation. They will include the following topics:

- Organisation of the PMOD Software
- Quantification by kinetic models
- Image registration, normalisation and fusion
- Visualization by 3D image rendering techniques

Program Demonstrations

The demonstrations will show how work is done with the most prevalent PMOD tools:

- Basic PMOD techniques (PVIEW)
- Kinetic modeling with regional time-activity curves (PKIN)
- Applying pixel-wise models to image data (PXMED)
- Image fusion, algebra, and stereotactic normalization (PFUS)
- 3D image rendering of brain data (P3D)

Note that the following PMOD tools will not be covered expressly by the main teaching: Cardiac modeling tool (PCARD), Alzheimer's Tool (PALZ), Normal brain database tool (PBRAINDB). However, questions concerning those tools may be discussed on an individual basis during the computer exercises.

Computer Exercises

They will be conducted on the participants' individual notebooks using the handed out USB flash key. The participants will be given a set of processing tasks together with a step-by-step written solution. During exercise time, they may work through the examples of their choice, and address the trainers for help or further information. Please note that for working efficiently, at least 1GB RAM will be needed.

Note

The organizers reserve the right for minor changes of the workshop content without notification.

Organization

Training Schedule

Day 1	09:00 - 17:00
Day 2	09:00 - 16:00

Workshop Dinner

On the eve of the first workshop day, PMOD will offer to all participants a free, complementary dinner. The dinner will allow for continuing discussions and for networking among peers in an informal and relaxed setting.

Registration and Costs

Registration can be done online, and will be handled on a first-come, first-serve basis for a maximal number of 20 participants. The workshop fee is (student discount of 20% on standard fees):

- Standard: EUR 580.- (until January 31, 2010), EUR 680.- (afterwards)
- Student: EUR 464.- (until January 31, 2010), EUR 544.- (afterwards)

The fee covers the training, all handouts, the USB flash key, all refreshments during the breaks, two lunches, as well as the complementary workshop dinner on the eve of the first training day. After registration, the participants will receive by e-mail a confirmation message with access information and payment directions. Note that the *workshop fee must be paid within 10 days after registration* (online payment). Thereafter, we reserve the right to offer the place to persons waiting for a vacancy.

The student fee is applicable to participants from academia who are currently enrolled in a doctoral or other graduate degree program. As a student participant, please perform the standard registration procedure without payment. Then, send your application for the student fee to info@pmod.com. Once it has been accepted, you are invited to proceed with the online payment.

Workshop Location

The workshop will be held at Hotel Continental, Zurich, Switzerland (Stampfenbachstrasse 60, CH-8006 Zurich). The hotel is conveniently located in downtown Zurich, just a 10 minutes walk off the main station.

Accommodation

Accommodation is not included in the fee and must be booked individually. Our recommended hotels are:

1. Hotel St. Josef (Hirschengraben 64/68, CH-8001 Zurich). 3-Star downtown hotel, a 10 minutes walk from the course location. www.st-josef.ch
2. Hotel Continental (Stampfenbachstrasse 60, CH-8006 Zurich). 4-Star luxury hotel and course location. www.accorhotels.com/accorhotels/fichehotel/de/sof/1196/fiche_hotel.shtml

Cancellation Policy

The workshop will be cancelled, if one month prior to the course dates, not enough enrolments have been done. In that case, the registered participants will be notified and will receive a full refund. If a registered participant has to cancel his or her attendance, he or she will get a refund (fee minus bank expenses) provided that the participant's place can be filled by another person.

Optional 3rd Workshop Day on Small Animal Data Processing

On Wednesday, **March 17**, the day right after the PMOD Training Workshop, a **PMOD Small Animal Imaging Day** will be organized in the same course environment. The participants will be trained in the processing of small animal data using PMOD and will learn the principles and special techniques required for the meaningful analysis of the uptake in small tissue structures.

The prerequisite for participation is an intermediate skill level in PMOD, as acquired for instance at the two days PMOD Training Workshop. Registration is being handled separately from the workshop registration, yet the following privileged fees will apply to workshop participants (student discount of 20% on standard fees):

- Standard: EUR 290.- (until January 31, 2010), EUR 340.- (afterwards)
- Student: EUR 232.- (until January 31, 2010), EUR 272.- (afterwards)

The fee covers the training, all handouts, a USB flash key for the 3rd day, lunch as well as all refreshments during the breaks. Further information: see flyer "PMOD Small Animal Imaging Day" (available on the PMOD website)