

# **PMOD Basic Application Course (PBA)**

Monday-Tuesday, September 24-25, 2018, Zurich, Switzerland www.pmod.com / Training

### Overview

The aim of PMOD's biannual Basic Application Course (PBA), held each year in March and September in Zurich, is to teach the participants the effective use of the major PMOD tools. Short presentations will outline the principles behind the different types of data analysis. The core of the course will be a series of guided exercises on the computer. Spare time will be devoted to interaction with the trainers.

The participants are required to bring their own notebooks. Each participant will be given a USB flash key containing 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**

- master the wealth of image presentations and layouts offered by PMOD
- 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
- explore different types of models in the general and pixel-wise modeling tool
- match multi-modal images of a single patient by manual and automatic methods
- normalize stereotactically a brain image to a brain atlas, in order to create objective VOIs
- apply segmentation techniques to extract organ surfaces and render them in 3D

### **Target Audience and Course Trainers**

The course is aimed at participants with a basic to intermediate PMOD skill level. It is primarily designed for PMOD beginners who wish to extend their knowledge and interact with PMOD experts. The participants will also have the opportunity to evaluate tools that are not available in their acquired installations. Participants eager to have an advance taste of the software are invited to request a free, 2-month trial license via the PMOD website and to download the PMOD Basic Workbook, and to practice with the example data provided.

The course will be taught by senior PMOD staff and seasoned PMOD users.

### Contents

### **Presentations**

The presentations are limited to allocate maximal time for hands-on work. They include a short introduction of PET quantification by kinetic models as well as overviews of the working principles of the different tools.

#### **Guided Exercises**

In the guided exercises, the trainers will demonstrate how work is done with the most prevalent PMOD tools, while the participants reproduce the workflows in parallel on their own notebooks:

- Basic PMOD techniques (PVIEW)
- Kinetic modeling with regional time-activity curves (PKIN)
- Applying pixel-wise models to image data (PXMOD)
- Image fusion, algebra, and stereotactic normalization (PFUS)
- Visualization of anatomy and function in 3D scenes (P3D)
- Automatic generation of brain Volumes-of-Interest (PNEURO)

Due to time limitations, the other available PMOD tools will not be covered: Cardiac PET / MR Modeling (PCARD), Geometric Models and Simulation (PGEM), Alzheimer's Analysis for FDG PET (PALZ), and PET Image Segmentation (PSEG). However, short demonstrations will be given on request, and related questions may be discussed on an individual basis.

Note that we reserve the right for minor changes of the course content without notification.

### Work on the Computer, PMOD Basic Workbook, and Documentation

A participant's notebook should comprise at least 8GB RAM, and a 64-bit operating system is needed. The display of the notebook should have a resolution of at least 800 pixels in height to support adequate program layouts.

The participants will conduct the guided exercises on their notebooks, using the supplied USB flash key. At the outset of the course, the participants will be handed out the PMOD Basic Workbook, a concise 36-page step-by-step tutorial of all major PMOD tools as well as of database management. The exercises will consist of a set of processing tasks whose solutions are detailed in the workbook. Note that the workbook is also available for download from the PMOD website.

The course presentations, the PMOD Workbook, and the PMOD documentation will all be available on the supplied USB flash key.

## **Organization**

### **Course Schedule**

Monday, September 24 09:00 - 17:00 Tuesday, September 25 09:00 - 16:00

### Course Dinner

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

## **Course Registration and Rates**

Registration can be done online, and will be handled on a first-come, first-served basis for a maximal number of 20 participants. The course fee amounts to:

- Regular: EUR 790.- (Early-Bird, until August 26, 2018), EUR 890.- (Standard, afterwards)
- Student: EUR 632.- (Early-Bird, until August 26, 2018), EUR 712.- (Standard, afterwards)

The fee covers the training lessons and documentation, the USB flash key, all refreshments during the breaks, two lunches as well as the course 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 course 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 (20% off the regular 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 accepted, you are invited to proceed with the online payment.

Note that new PMOD license holders are granted a 50% discount on the regular rates.

## **Course Location**

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

## Accommodation

Accommodation is not included in the course fee and must be booked individually. A list of selected hotels near the course location is available on the PMOD website.

## **Cancellation Policy**

The course will be cancelled, if one month prior to the course, 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 attendance, he or she will get a refund (fee minus bank expenses) provided that the seat can be filled by another person.

# **Complementary PMOD Courses**

This course is part of a series of PMOD courses all taking place during the same week in Zurich, Switzerland. Further information can be found on the respective course flyers (available on the PMOD website). Registration for the complementary courses is being handled separately from registration for this course, yet volume discounts do apply on multiple course registrations (see consolidated price list published on the flyer "PMOD Courses in September 2018", available on the PMOD website).