

<p>EC COST B21 Physiological Modelling of MR Image Formation</p>
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**7th MANAGEMENT COMMITTEE AND
MAZDA, WG1, WG2, WG3 MEETINGS**

LOCAL ORGANISERS

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VENUE

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18th – 20th October, 2006

AGENDA



Wednesday 18th October

WORKING GROUP 1, WORKING GROUP 2, WORKING GROUP 3 JOINT MEETING ON MAZDA INFORMATION AND TRAINING

The principal purpose of this joint working group meeting is to allow participants in the B21 action to achieve a consistent level of expertise in the use of the software Mazda (new version). This software has been developed and extended as a major part of the work of the action by the Technical University of Lodz, Poland. It is vital that all action members are able to benefit fully from its powerful features for analysis of texture data. This cannot be achieved without detailed supervised discussion and hands-on practice with the software. Participants should bring a laptop with them, if possible.

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|-------|---|
| 09.30 | The MaZda philosophy of image analysis. From image, through textural features to data classification
P Szczypinski and A Materka |
| 10.00 | 2D Image and region of interest vs. 3D image and volume of interest (VOI)
P Szczypinski |
| 10.15 | <i>Discussion</i> |
| 10.45 | <i>Coffee</i> |
| 11.00 | Installing the new MaZda
P Szczypinski |
| 11.15 | Loading and viewing the 3D image
P Szczypinski |
| | a) Loaders implemented in MaZda
b) Changing the brightness and contrast
c) Viewing the 3D cross-sections at different angles |
| 11.30 | Volumes of Interest
P Szczypinski |
| | a) Building the VOI of 3D blocks
b) Deformable model for VOI creation
c) 3D Image thresholding and flood-fill procedure
d) Copying and moving existing VOI
e) Undoing changes
f) Assigning a class name to a VOI
g) Saving and opening a VOI file |

- 12.30 *Discussion*
- 13.00 *Lunch*
- 14.00 3D Texture analysis
 M Strzelecki
- a) New textural features – what they are
 b) Histogram and COM analysis options
 c) 3D Analysis example – classification of 3D MRFs
- 14.30 *Discussion*
- 14.45 Feature selection using MaZda
 M Strzelecki
- a) Feature selection methods
 b) Feature selection based on Mutual information
- 15.15 *Coffee*
- 15.30 Data analysis and image segmentation with B11
 Andrzej Materka
- 16.00 *Discussion*
- 17.00 Close

Thursday 19th October

- 08.30 Welcome
 M Pascu (COST Office)

- 08.35 Introduction
 R A Lerski (UK)

Working Group 1 – Tissue parameters and physiological data, including MRI : Chairman – J Reichenbach (DE)

- 08.40 Introduction
 J Reichenbach (DE)

- 08.45 Tumour cell viability in response to vascular disrupting agents quantified by MRI
 diffusion and perfusion imaging
 H Stødkilde-Jørgensen (DK)

- 09.10 Quantitative multi-nuclear MRS of skeletal muscle
 E Moser (AT)

- 09.35 Extraction and quantification of physiological parameters using SWI
J Sedlacik (DE)
- 10.00 Biochemical MR Imaging of autologous cartilage implantation *in vivo*
S Trattng (AT)
- 10.25 Multimodality medical imaging registration
P Rogelj, S Kovacic (SI)
- 10.45 **Discussion**
- 11.00 **Coffee**

Working Group 2 – Software, simulation and modelling : Chairman – A Materka (PL)

- 11.20 Introduction
A Materka (PL)
- 11.25 Report on software
P Szczypinski (PL)
- 11.45 Cardiac motion estimation from MRI sequences
A Santos (ES), M J Ledesma-Carbayo (ES)
- 12.05 Simulation of hepatic MRI
J Bezy-Wendling (FR) + Rennes group
- 12.25 Visualisation of pancreatic islets in 3D MRI liver images
L Palus (PL), M Strzelecki (PL), D Jirak (CZ)
- 12.50 **Discussion**
- 13.00 **Lunch**

Working Group 2 - continued

- 14.00 Robustness of brain ROIs texture analysis certified by a dataset randomisation method
J-F Nedelec (FR), G Viardot (FR), J Chambron (FR), J-P Macher (FR)
- 14.20 Texture-based image registration
A Jarc (SI)
- 14.40 Estimation of arterial blood flow based on in-vivo MR measurements
G Szekely (CH)
- 15.00 **Discussion**

Working Group 3 – Experimental Verification and Trials : Chairman – J Chambron (F)

- 15.10 Introduction
J de Certaines (FR) – deputising for J Chambron
- 15.15 Liver Fibrosis, correlation with METAVIR Grading
Prague, Rennes, Dundee, Lodz
- 15.35 Liver volume (segmentation)
Prague, Rennes, Dundee, Lodz
- 15.55 Glioblastomas
London, Lodz, Jena, Heidelberg, Rennes
- 16.15 *Discussion*
- 16.20 *Coffee*

Plenary Meeting – Plans for the Action in 2006

- 16.40 Working Group 1 - J Reichenbach
Working Group 2 - A Materka
Working Group 3 - J Chambron (J de Certaines)
Overall B21 Action - R A Lerski
- 18.00 *Close*

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7th Management Committee Meeting

VENUE
COST Office
Brussels, Belgium

Friday 20th October 2006

A G E N D A
9.00 – 18.00



Chairman – Dr R A Lerski

- 1) Welcome to participants
- 2) Adoption of the Agenda
- 3) Adoption of the Minutes of the last meeting held in Sardinia (1 April, 2006)
- 4) Presentation of the delegations
- 5) Status of COST B21 Action
- 6) Report from the Chair and the Science Officer: Budget Status
- 7) Non-COST participation.
- 8) Short Term Scientific Missions
- 9) Dissemination : publications and web site
- 10) Update on Work Plan
 - ◆ Objectives and work programme
 - ◆ Working methods, organisation and management
 - ◆ Distribution of tasks
 - ◆ Annual Plan
- 11) Agreement of next Working Group meetings
- 12) Place and date of next meeting of the Management Committee
- 13) Any Other Competent Business

10.00 – 10.30 : *Coffee*
13.00 – 14.00 : *Lunch*