

General meeting of the Positron Emission Tomography Group

5th July 2013, Lecture hall 057, Institute of Physics, Jagiellonian University

09:30 Coffee and sandwiches

10:05 General introduction: P. Moskal

THE STATUS OF LABORATORY WORK (chairperson: P. Moskal)

10:15 – 10:30 Development of the scintillator synthesis method (Ł. Kapłon, UJ)

10:30 – 10:45 Tests of photomultipliers: Summary
(T. Bednarski, Sz. Niedźwiecki, M. Pawlik, N. Sharma, UJ)

10:45 – 11:00 Estimation of time offsets of electronics (Sz. Niedźwiecki, UJ)

11:00 -- 11:15 Description of collimator systems (T. Bednarski, Sz. Niedźwiecki, UJ)

11:15 – 11:30 Summary of the experimental campaigns (M. Pawlik, UJ)

11:30 – 11:50 Coffee break

DEVELOPMENT OF ANALOG AND DIGITAL ELECTRONICS (chairperson: P. Salabura)

11:50 – 12:05 Tests of the four-threshold constant-level discriminator KB6 (N. Sharma, UJ)

12:05 – 12:15 Description of the KB7 design and status of realization; status of preparation of photomultiplier bases and housings (K. Łojek, Instytut Fotonowy)

12:15 – 12:30 Status of design and preparation of high and low voltage supply system
(M. Kajetanowicz, UJ)

12:30 – 12:45 Description of project and status of the realization of the HV and SDA control system
(K. Błasiński, Silvermedia)

12:45 – 13:00 Performance of the digital read-out system (KB+TRBv3) and new discriminator prototype (M. Pałka, UJ)

13:00 – 13:15 Status of the PET data acquisition system (G. Korcyl, UJ)

13:15 – 14:15 LUNCH IN THE IFUJ BAR

SIGNAL RECONSTRUCTION (chairperson: J. Smyrski)

14:30 – 14:45 Status of the development of the energy calibration method
(T. Bednarski, E. Czerwinski, UJ)

14:45 – 15:05 Hit position reconstruction using Chi-2 minimization method (M. Zieliński, UJ)

15:05 – 15:25 Raw signal reconstruction using Compressive Sensing method (L. Raczyński, NCBJ)

15:25 – 15:40 Hit position reconstruction using Hausdorff metric (N. Zoń, UJ)

15:40 – 16:00 Coffee break

DATA ANALYSIS AND SIMULATIONS (chairperson: W. Krzemień)

16:00 – 16:20 PET Controller structure (P. Jamka, K. Błasiński, Silvermedia)

16:20 – 16:45 Description of the event structures at various analysis stages (E. Czerwiński, UJ)

16:45 – 16:55 Status of the preparation of the data analysis programme (M. Silarski, UJ)

16:55 – 17:10 Status of the event display for a single event (K. Stopa, D. Trybek, W. Krzemień, UJ)

17:10 – 17:25 Simulations of the detector response with the GATE package (P. Kowalski, NCBJ)

17:25 – 17:40 Coffee break

IMAGE RECONSTRUCTION AND VISUALISATION (chairperson: Z. Rudy)

17:40 – 17:55 Image reconstruction algorithm (A. Strzelecki, UJ)

17:55 – 18:10 Image reconstruction based on MLEM algorithm (A. Słomski, UJ)

18:10 – 18:25 Image visualization (P. Jamka, Silvermedia)

PLANNING OF FURTHER WORK AND PUBLICATIONS

18:30 – 19:30 Coffee and cakes

- Plans of near future measurements
- Summary of achieved results and plans of publications
- Discussion and establishment of rules of authorships
- Discussion about the name of the Collaboration (what about **J-PET** ? (**J**agiellonian **P**ET))