

# Annual Meeting of the SSRMP, Lindenhofspital, Bern, 14./15.10.2004: Final programme

## Thursday 14<sup>th</sup> October 2004

09.00- **Registration**  
10.00

10.00- **Opening of the meeting**  
10.15 *L. André, Bern*

10.15- **Intensity modulated radiotherapy**  
12.00 *Chair : U. Schneider, Zürich*

La modulation d'intensité avec compensateurs, étude préliminaire.

*N.Hejira (1,2), R. Moeckli(1), D. Schneider(2), A. Rolin(2), J. F. Valley(1)*

*(1) Institut Universitaire de Radiophysique Appliquée, Lausanne*

*(2) Clinique de Genolier, Genolier*

Tomotherapy planning of small brain tumours

*Slav Yartsev(1), Tomas Kron(1), Alessandra Bolsi(2), Luca Cozzi(2), Antonella Fogliata(2), Glenn Bauman(1)*

*(1) London Regional Cancer Centre, London, Ontario, Canada*

*(2) Oncology Institute of Southern Switzerland, Medical Physics Unit, Bellinzona, Switzerland*

Determination of the optimal beam arrangement for IMRT by a simple method

*A. Merçay(1), S. Bulling(1), R. Moeckli(1), M. Ozsahin(2), R.-O. Mirimanoff(2), J.-F. Valley(1)*

*(1) University Institute of Applied Radiophysics, Lausanne*

*(2) Radiation Oncology Department, CHUV, Lausanne*

Coffee Break, industrial exhibition

Comparison of static and dynamic sliding window deliveries for IMRT

*Giorgia Nicolini, Antonella Fogliata, Luca Cozzi*

*Oncology Institute of Southern Switzerland, Medical Physics Unit, Bellinzona, Switzerland*

Magic gel composition and MR imaging parameter optimization for 3-D dose verifications in IMRT, proton therapy and radiosurgery

*Remo Crescenti(1), Stefan Scheib(2), Tony Lomax(3), and Uwe Schneider(4)*

*(1) Department of Information Technology and Electrical Engineering, ETH, Zürich*

*(2) Abteilung für Medizinische Strahlenphysik, Klinik Im Park, Zürich*

*(3) Division of Radiation Medicine, Paul Scherrer Institute, Villigen*

*(4) Department of Radiation Oncology and Nuclear Medicine, City Hospital Triemli, Zürich*

In-house software for verification of IMRT fields by film dosimetry

*R. Moeckli, S. Bulling, G. Pache, H.P. Do, A. Merçay, S. Bressan, J.-F. Valley*

*University Institute of Applied Radiophysics, Lausanne*

12.00- **Lunch (sponsored by Elekta, Siemens and Varian), industrial**  
14.00 **exhibition**

13.00- **Image guided radiotherapy (manufacturer symposium)**

14.00

*Chair: G. Garavaglia, Lausanne*

4D adaptive radiotherapy

*Erik Geerlof*

*Elekta Oncology Systems BV, Best, The Netherlands*

Stereotactic patient positioning and verification using a hybrid system of linear accelerator and in-room CT scanner

*Ch. Thieke, D. Schulz-Ertner, Ch. Thilmann, J. Debus*

*Dept. of Radiation Oncology, University Hospital of Heidelberg and German Cancer Research Center, Heidelberg, Germany*

Dynamic Targeting™ - Image Guided Radio Therapy

*Martin Sabel*

*Varian Medical Systems International AG, Zug, Switzerland*

14.00- **Quality management**

15.20

*Chair: B. Leemann, Luzern*

14.00- *Invited talk*

14.30

Quality management is an engineering problem

*George Sherouse*

*Sherouse Systems Inc., Chapel Hill, USA*

Die Akkreditierung der Abteilung Radiologische Physik am  
Kantonsspital Basel: Aufwand und Ertrag

*Hans W. Roser, Dorette Oppliger, Jakob Roth*

*Abteilung Radiologische Physik, Universitätsspital, Basel*

A quality management system for an integrated ROKIS

*P. Pemler, U. Schneider, J. Besserer*

*Division of Medical Physics, Department of Radiation Oncology and Nuclear  
Medicine, City Hospital Triemli, Zürich*

What's what in linac QC according to SGSMP recommendations  
number 11

*Lomax N(1), Cozzi L(2), Fogliata-Cozzi A(2), Ionescu-Farca F(3), Roser H(4),  
Schneider U(5), Trueb P(6)*

*(1) Klinik Im Park, Zurich*

*(2) IOSI, Bellinzona*

*(3) Marly*

*(4) Kantonsspital/Universitätskliniken Basel, Basel*

*(5) Stadtspital Triemli, Zürich*

*(6) Bundesamt für Gesundheit, Bern*

Der Beitrag der Medizinischen Physik zur Ausbildung der Medizin-  
Studenten an der Universität Basel

*J. Roth*

*Abteilung Radiologische Physik, Universitätsspital Basel*

15.20- Coffee Break, industrial exhibition  
15.45

15.45- **Annual general assembly SBMP/APSPM**  
17.00

16.30/ **Visit of the clockwork of the Zytglogge-tower**  
17.30

20.00 **Dinner and night out on the Gurten**

## Friday 15<sup>th</sup> October 2004

### 08.00- **Keynote address**

08.50 *Chair: H. Neuenschwander, Bern*

IMRT deployment in the United States: A cautionary tale

*George Sherouse*

*Sherouse Systems Inc., Chapel Hill, USA*

### 08.50- **Metrology; QC Radiotherapy**

10.30 *Chair: H. Roser, Basel; P. Manser, Bern*

Lateral dosimetry of RU-106 ophthalmic plaques

*R. Moeckli(1), A. Robak(1), F. Munier(2), S. Bulling(1), G. Pache(1), H.P. Do(1), A. Merçay(1), S. Bressan(1), J.F. Valley(1)*

*(1) University Institute of Applied Radiophysics, Lausanne*

*(2) Jules Gonin Ophthalmic Hospital, Lausanne*

Étalonnage d'un dosimètre à scintillation pour le Sr-90/Y-90

*F.O. Bochud, T. Buchillier, R. Moeckli, J.F. Valley*

*Institut Universitaire de Radiophysique Appliquée, Lausanne*

Entwicklung einer amtlichen Datenschnittstelle für die Übertragung der Personendosis zwischen medizinischen Kliniken und amtlichen Messstellen basierend auf der DIS-1 (Direct Ion Storage) Technologie

*Dirk Freynhagen*

*RADOS Technology Group, Hamburg, Germany*

Contrôle de l'activité en médecine nucléaire

*F. Bochud(1), J.-P. Laedermann(1), J.F. Valley(1), C. Wastiel(1), R. Linder(2), M. Sassowsky(3)*

*(1) Institut Universitaire de Radiophysique Appliquée, Lausanne*

*(2) Office fédéral de la santé publique, Berne*

*(3) Office fédéral de métrologie et d'accréditation, Wabern*

A new software tool for quality control of MLC-leafposition by means of a portal imager

*M. Arnold*

*Kantonsspital, Münsterlingen*

A calibration method for an amorphous silicon portal imaging device for linac quality control measurements

*K. Münch(1), L. André(1), H. Neuenschwander(1), H. Riem(2)*

*(1) Radio-Onkologie, Lindenhofspital, Bern*

*(2) Varian Medical Systems, Baden*

QualityCheck.mdb: Eine MS-Accesslösung für die Auswertung der Qualitätskontrollen

*M. Schmid*

*Abteilung Radiologische Physik, Universitätsspital Basel*

Geometric accuracy of three different brachytherapy reconstruction techniques

*H. Karle(1), C. Born(1), A. Roué(2), J. Venselaar(2), H.-P. Rösler(1), W. Mohr(1), M. Thelen(1)*

*(1) Klinik und Poliklinik für Radiologie/Strahlentherapie, Universitätsklinikum, Mainz*

*(2) EQUAL/ESTRO Measuring Laboratory, Institute Gustave Roussy, Paris*

10.30- Coffee Break, industrial exhibition  
11.00

11.00- **Patient positioning and tumour localisation in radiotherapy**

12.40 *Chair: S. Klöck, Münsterlingen*

11.00- *Invited talk*

11.30 Accurate on-line patient setup in clinical routine

*Daniel Vetterli*

*Abteilung für Medizinische Strahlenphysik, Klinik für Radio-Onkologie, Inselspital, Bern*

11.30- *Invited talk*

12.00 Potential benefit of respiratory gated treatment of lung tumor : A prestudy

*Chr. De Pooter, G. Pittomvils, J. Alberty*

*Oncologisch Centrum GVA, Antwerp, Belgium*

Comparaison entre la plaque au phosphore et le film radiographique conventionnel pour les contrôles de positionnement en radiothérapie

*N. Hejira(1,2), P. Monnin(1), D. Schneider(2), R. Studer(2), R. Moeckli(1), J.F. Valley(1)*

*(1) Institut Universitaire de Radiophysique Appliquée, Lausanne*

*(2) Clinique de Genolier, Genolier*

Correction of patient setup uncertainties with an interlockable couch position control system

*L. André, H. Neuenschwander, K. Münch*

*Radio-Onkologie, Lindenhofspital, Bern*

Remote patient imaging and correction as a future model for state-of-the-art proton therapy centres.

*Tony Lomax, Alessandra Bolsi, Jorn Verwey, Eros Pedroni and Gudrun Goitein*

*Division of Radiation Medicine, Paul Scherrer Institut*

12.40- **Lunch (sponsored by SSRMP), industrial exhibition**

14.30

13.15- **Annual general assembly SSRMP**

14.30

14.30- **Radiation protection; Imaging**

16.00

*Chair: R. Möckli, Lausanne; Ph. Trüeb, Bern*

Estimation of radiation induced cancer from 3D-dose distributions: A concept of organ equivalent dose

*Uwe Schneider(1), Daniel Zwahlen(1), Dieter Ross(1), Jürgen Besserer(1), Peter Pemler(1) and Barbara Kaser-Hotz(2)*

*(1) Division of Medical Physics, Department of Radiation Oncology and Nuclear Medicine, City Hospital Triemli, Zürich, Switzerland*

*(2) Division of Diagnostic Imaging and Radio-Oncology, Vetsuisse Faculty, University of Zürich, Switzerland*

Die Bestimmung der effektiven Dosis bei CT-Untersuchungen und Vergleiche mit kommerziellen Dosisberechnungsprogrammen

*J. Roth, F. Koller, H.W. Roser*

*Abt. Radiologische Physik, Universitätsspital Basel*

Diagnostische Referenzwerte bei dosisintensiven Untersuchungen in der Radiologie

*A. Aroua(1), H. Jung(2), Th. Theiler(2), Ph. R. Trueb(2), J.-F. Valley(1) and F.R. Verdun(1)*

*(1) Institut Universitaire de Radiophysique Appliquée, Lausanne*

*(2) Bundesamt für Gesundheit, Abteilung Strahlenschutz, Bern*

A strategy to qualify the performance of radiographic monitors

*D. Gutierrez(1), P. Monnin(1), D. Lepori(2), J.-F. Valley(1), F.R. Verdun(1)*

*(1) Institut Universitaire de Radiophysique Appliquée, Lausanne*

*(2) CHUV, Service de radiologie, Lausanne*

Phase contrast imaging of neo-vascular process in cams

*P. Monnin(1), R. Meuli(2), J. Hozowska(3), J.-F. Valley(1), V. Djonov(4), R. Hlushchuk(4), F.R. Verdun(1)*

*(1) Institut For Applied Radiophysics, Lausanne*

*(2) University Hospital (CHUV), Lausanne*

*(3) European Synchrotron Research Facility (ESRF), Grenoble, France*

*(4) University of Bern, Institute of anatomy, Bern*

Gamma cameras comparison on the basis of the new acceptance testing procedure proposed by the Federal Office of Public Health (BAG)

*F. Corminboeuf(1), P. Monnin(2), E.P. Ritter(1), Th. Krause(1), A. Bischof-Delaloye(3), J.-F. Valley(2), F.R. Verdun(2)*

*(1) Klinik + Poliklinik für Nuklearmedizin der Universität, Inselspital, Bern*

*(2) University Institute for Applied Radiophysics, Lausanne*

*(3) Nuclear Medicine Dept., CHUV, Lausanne*

Objective assessment of image quality in conventional and digital mammography

*P. Monnin(1), D. Lepori(2), J.-F. Valley(1), F.R. Verdun(1)*

*(1) Institut de Radiophysique Appliquée, Lausanne*

*(2) CHUV, Service de Radiologie, Lausanne*

16.00- Closing of the meeting

16.15 *L. André, Bern*