



Swiss Society for Radiobiology and Medical Physics

Member of the European Federation of Organisations for Medical Physics (EFOMP) and the International Organization for Medical Physics (IOMP)

SSRMP Annual Scientific Meeting 2005

17 and 18 November 2005

CHUV – Lausanne

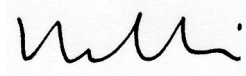
Bienvenue à Lausanne

Nous nous réjouissons de vous accueillir bientôt dans le cadre de notre congrès annuel de radiophysique médicale.

Nous avons essayé de préparer un programme attrayant dans tous les domaines de la radiophysique médicale. Chaque session sera introduite par un conférencier invité qui nous parlera d'un thème d'actualité dans le domaine de la recherche en radiophysique médicale. Par ailleurs, un cours sur le PET-CT aura lieu vendredi matin. Ce programme est complété par un grand nombre d'exposés des membres de notre société. Nous remercions par avance tous les conférenciers.

L'assemblée annuelle de l'APSPM aura lieu le jeudi 17 novembre 2005 à 16h30 et celle de la SSRPM le vendredi 18 novembre 2005 à 13h15. Ce sera l'occasion de faire le point sur la position de la radiophysique médicale en Suisse et de renouveler les membres de nos comités.

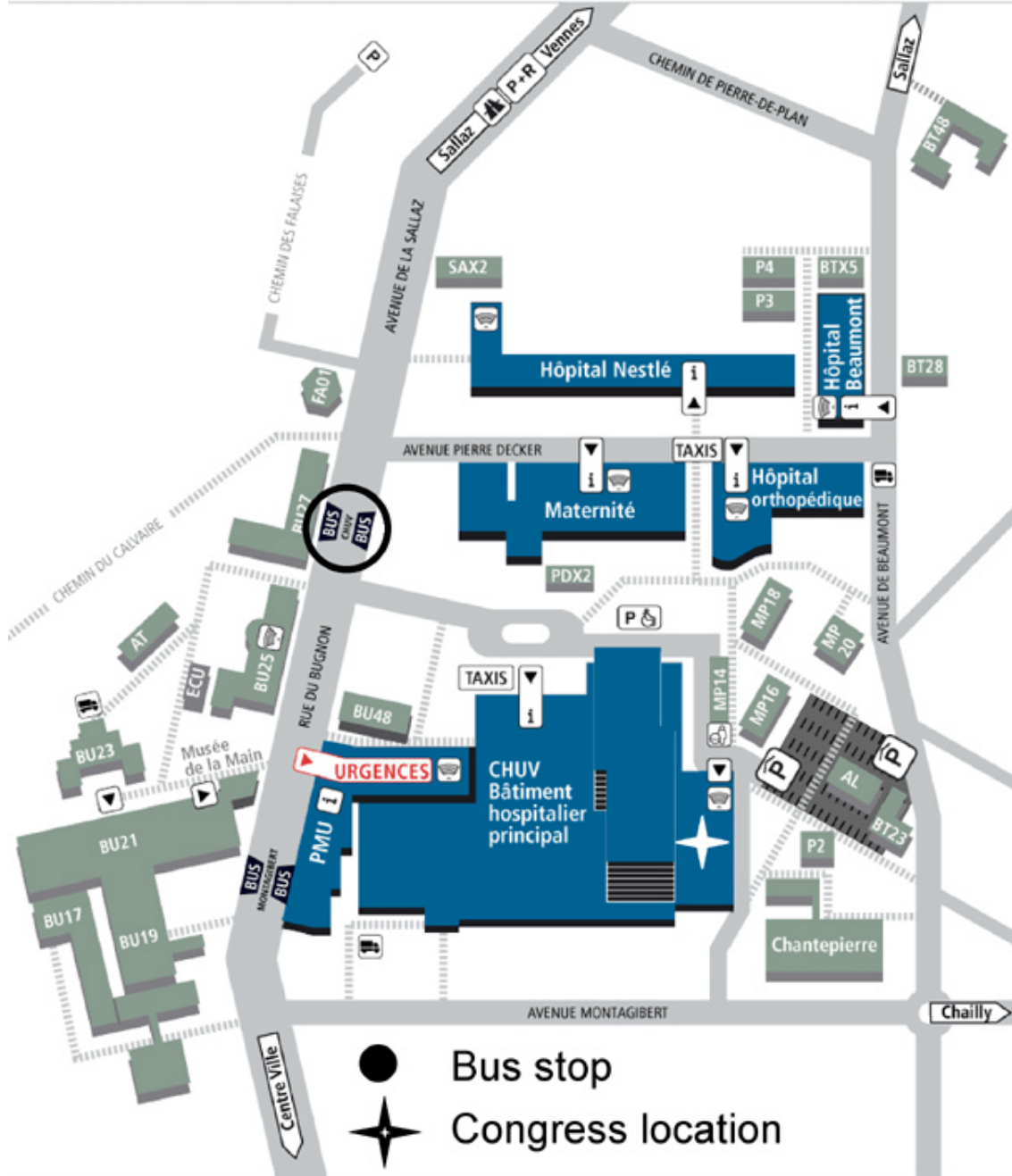
Pour le comité d'organisation



R. Moeckli

General informations

- Location Centre Hospitalier Universitaire Vaudois (CHUV)
Auditoire Auguste Tissot
Rue du Bugnon 11
1011 Lausanne
- Contacts Nicole Tille (Secretary)
Nicole.Tille@chuv.ch, tel. : 021 623 34 42
- Raphaël Moeckli (General organisation)
Raphael.Moeckli@chuv.ch, tel. : 021 314 46 18
- Registration Please send back the enclosed form before 28 October 2005.
There is no fee for the congress.
- Access By train : Arrival to Lausanne railway station – Bus No 5 in front of
the station, exit station « CHUV » (~ 20 minutes).
By car : Highway exit « Lausanne-Vennes » ; follow direction
« hôpitaux » ; parking very difficult near CHUV ; public parking
expensive.
- Hotel Please contact Lausanne Tourisme
www.lausanne-tourisme.ch, tel : 021 613 73 73.
- Visit Thursday at 18h00 you are invited to visit the cathedral of
Lausanne.
- Dinner The evening dinner will take place at restaurant du Château
d'Ouchy in front of the lake. The fee is Frs 55.- all included.
Please register with the enclosed form.
- Publication The proceedings of the congress will be published separately.



- Principaux bâtiments de soins
- Autres bâtiments
- Routes principales
- Liaisons piétonnières

- Accès principaux / handicapés
- Accueil / Information
- Auditorios
- Garderie

- Parking des hôpitaux
- Parking handicapés
- Livraisons
- Lignes 5 / 6 / 45 / 62 / 65

Programme

Thursday 17th November 2005

0900 - 1000 **Registration**

1000 - 1015 **Opening of the meeting**

R. Moeckli, Organising committee, Lausanne

L. André, SSRMP president, Bern

1015 - 1215 **Radiotherapy I**

Chair : J.-Y. Ray, Sion

1015 1100 Invited speaker: U. Schneider, Zurich

Modelling secondary cancer risk after radiotherapy

1100

3-D conformal radiotherapy treatment planning for prostate cancer: better organ definition and less dose to the penis bulb with MRI-based compared to CT-based virtual simulation?

G. Dipasquale, C. Ares, C. Jargy, P. Nouet, M. Rouzaud, R. Miralbell

Radiation Oncology, Hôpitaux Universitaires de Genève, Genève

1115

Open low-field magnetic resonance (MR) versus computerised tomography (CT) in tumor bed localisation for breast radiotherapy treatment planning

G. Dipasquale (1), S. Balmer Majno (1), P. Petrow (2), C. Jargy (1), B. Pastoors (1), J. Kurtz (1).

Radiation Oncology (1) and Radiology (2), Hôpitaux Universitaires de Genève, Genève

1130

Commissioning of the Electron Monte Carlo Algorithm (EMC) and evaluation for clinical use

P. Pemler, J. Besserer and U. Schneider

Stadtspital Triemli, Zürich

1145

Preliminary results from testing the Anisotropic Analytical Algorithm for photon dose calculation

L. Cozzi, A. Fogliata, G. Nicolini

Oncology Institute of Southern Switzerland, Bellinzona

- 1200 Rectal volume changes during radiotherapy for prostate cancer and mild to moderate late rectal toxicity
M. Rouzaud (1), J. Lozano (2), C. Ares (1), P. Nouet (1), L. Escudé (2), G. Dipasquale (1), M. Mollà (2), D. Linero (2), R. Miralbell (1,2)
 (1) *Service de Radio-Oncologie, Hôpitaux Universitaires, Genève*
 (2) *Instituto Oncológico Teknon, Barcelona*
- 1215 Influence of rectal volume changes on safety margin expansion around the clinical target volume in radiotherapy for prostate cancer: the case for an anisotropic expansion in the antero-posterior axis
R. Miralbell (1,2), J. Lozano (2), C. Ares (1), P. Nouet (1), L. Escudé (2), G. Dipasquale (1), M. Mollà (2), D. Linero (1), M. Rouzaud (1)
 (1) *Service de Radio-Oncologie, Hôpitaux Universitaires, Genève*
 (2) *Instituto Oncológico Teknon, Barcelona*
- 1230 - 1415 **Lunch (Sponsored by Siemens and Brainlab)**
Industrial exhibition
- 1415 - 1612 **Nuclear medicine, radiation protection and radiation metrology**
Chair : G. Garavaglia, Lausanne
- 1415 1500 Invited speaker : O. Ratib, Genève
 Multimodality imaging and applications beyond diagnosis
- 1500 PET/CT QA: from precise standardised uptake values to information transfer in radiation therapy
O. Pisaturo (1), R. Moeckli (1), N. Hejira (2), P. Monnin (1), M. Kosinski (1), C. Wastiel (1), S. Bulling (1), F. R. Verdun (1)
 (1) *University Institute of Applied Radiation Physics, Lausanne*
 (2) *Clinique de Genolier, Genolier*
- 1512 Challenge and pitfalls of open source radionuclide therapy - Need of "dosimetry training" in Radioimmunotherapy
F. Corminboeuf, Th. Krause, E.-P. Ritter, S. Weidner, M. Hofmann
Klinik + Poliklinik für Nuklearmedizin, Inselspital, Bern

- 1524 Ion-imprinted polystyrene resin for selective extraction of ^{90}Y in a $^{90}\text{Sr}/^{90}\text{Y}$ generator
P. Froidevaux (1), A.-S. Chauvin (2), J.-C. G. Bünzli (2), R. Scopelliti (2)
 (1) *University Institute of Applied Radiation Physics, Lausanne*
 (2) *Ecole Polytechnique Fédérale de Lausanne, Lausanne*
- 1536 Dosimetry and Quality Assurance in High Dose Rate Brachytherapy with Iridium-192
F. Bochud (1), B. Leemann (2), R. Linder (3), K. Münch-Berndl (4), R. Moeckli (1), H. Nemeč (5), M. Sassowsky (6), G. Stucki (6)
 (1) *University Institute of Applied Radiation Physics, Lausanne*
 (2) *Klinik für Radio-Onkologie, Kantonsspital Luzern, Luzern*
 (3) *Bundesamt für Gesundheit, Abteilung Strahlenschutz, Bern*
 (4) *Radio-Onkologie, Lindenhofspital, Bern*
 (5) *Abteilung für Radiologische Physik, Kantonsspital Basel, Basel*
 (6) *METAS, Bern-Wabern*
- 1648 Nouvelle méthode de vérification des dosimètres pour les rayons X de moyenne énergie
T. Buchillier, C. Castella, F. Bochud
University Institute of Applied Radiation Physics, Lausanne
- 1600 Primary measurement of ^{222}Rn at IRA-METAS
P. Spring, Y. Nedjadi, F. Bochud
University Institute of Applied Radiation Physics, Lausanne
- 1630 1730 **Annual general assembly SBMP/APSPM**
- 1800 - 1930 **Visit of the cathedral of Lausanne**
- 2000 **Dinner at Restaurant du Château d'Ouchy**

Friday, 18th November 2005

- 0800 - 1033 **Radiological physics**
Chair : P. Pemler, Zürich
- 0800 - 0900 PET-CT teaching course
F. R. Verdun
University Institute of Applied Radiation Physics, Lausanne
- 0900 - 0945 Invited speaker : P. Trueb, Bern
The Swiss approach to Diagnostic Reference Values
- 0945 Noise qualification in MSCT of various technologies
D. Gutierrez (1), P. Monnin (1), F. Gudinchet (2), F.R. Verdun (1)
(1) University Institute of Applied Radiation Physics, Lausanne
(2) Service de radiodiagnostic et de radiologie interventionnelle, CHUV, Lausanne
- 0957 An image quality comparison of standard and dual-side read CR systems for paediatric radiology
P. Monnin (1), Z. Holzer (2), R. Wolf (2), U. Neitzel (3), P. Vock (2), F. Gudinchet (4), F.R. Verdun (1)
(1) University Institute of Applied Radiation Physics, Lausanne
(2) Institute for Paediatric Radiology, Inselspital, Bern
3) Philips Medical Systems DMC GmbH, Hamburg, Germany
4) Service de radiodiagnostic et de radiologie interventionnelle, CHUV, Lausanne
- 1009 Performances analysis of 4-row and 16-row MDCT units
F.R. Verdun (1), N. Theumann (2), D. Gutierrez (1), P. Schnyder (2), S.D. Qanadli (2)
(1) University Institute of Applied Radiation Physics, Lausanne
(2) Service de radiodiagnostic et de radiologie interventionnelle, CHUV, Lausanne

- 1021 Classification of mammographic parenchymal patterns with multidimensional statistical features
C. Castella (1), K. Kinkel (2), M. P. Eckstein (3), P.-E. Sottas (1), F. Descombes (4), F. R. Verdun (1), F. O. Bochud (1)
(1) University Institute of Applied Radiation Physics, Lausanne
(2) Clinique des Grangettes, Chêne-Bougeries
(3) University of California, Santa Barbara, CA, USA
(4) Haute École Cantonale Vaudoise de la Santé, Lausanne
- 1033 - 1115 **Coffee, exhibition**
- 1115 - 1233 **Radiotherapy II**
Chair : P. Manser, Bern
- 1115 1145 Invited speaker : B. Pastoors, Genève
 Statistics in Swiss radiation oncology departments : results and perspectives
- 1145 The SC cyclotron and beam lines of PSI's new protontherapy facility PROSCAN
M. Schippers, J. Duppich, G. Goitein, M. Jermann, E. Pedroni, for the PROSCAN team
Paul Scherrer Institute, Villigen
- 1157 BART (Breathing Adapted Radiotherapy) using modern gating technologies
P. H. Cossmann, C. von Briel
Institute of Radiation Oncology, Hirslanden Klinik, Aarau
- 1209 Acceptance testing and commissioning of a X-ray image-guided radiotherapy system
J.-F Germond and M. Notter
Service de radio-oncologie, Hôpital de la ville, La Chaux-de-Fonds
- 1221 Linac Cone-beam-CT option: A useful tool?
A. Stuessi, C. von Briel, P. H. Cossmann
Institute of Radiation Oncology, Hirslanden Klinik, Aarau
- 1233 - 1430 **Lunch, coffee, exhibitions**
- 1315 - 1430 **Annual general assembly SSRMP**

- 1430 - 1642 **Radiotherapy III**
Chair : B. Davis, Zürich
- 1430 - 1530 Invited speaker : T. Mackie, USA
 Clinical Implementation of Tomotherapy
- 1530 A method to evaluate the quality of beam matching between LINACs
P. Favre, C. Chatelain, J.-F. Germond
Hôpital de La Chaux-de-Fonds, Service de radiothérapie, La Chaux-de-Fonds
- 1542 Quality control of a linear accelerator using electronic portal imaging
H. Schiefer (1), W. W. Seelentag (1), J. Roth (2)
(1) Klinik für Radio-Onkologie, Kantonsspital St.Gallen, St.Gallen
(2) Radiologische Physik, Kantonsspital Basel
- 1554 On the absolute dose calibration of the PV-aS500 Varian Portal Imager for IMRT
G. Nicolini, A. Fogliata, E. Vanetti, A. Clivio, L. Cozzi
Istituto Oncologico della Svizzera Italiana, Bellinzona
- 1606 Comprehensive leaf motion files analysis of head and neck and prostate IMRT treatment fields and its possible application in patient specific QA
D. Frauchiger, P. Manser, E.J. Born, R. Mini
Division of Radiation Physics, Inselspital and University of Bern
- 1618 Shielding considerations in helical tomotherapy
S. Baechler, R. Moeckli, F. Bochud
University Institute of Applied Radiation Physics, Lausanne
- 1630 Influence of Contrast Agent on IMRT dose distribution in head and neck patients
G. Kunz, G. Studer, J.B. Davis
Department of Radiation Oncology, University Hospital, Zürich
- 1642 - 1700 **Closing of the meeting**
 L. André, SSRMP president, Bern

Exhibitors

CMS Computerized Medical Systems

Elekta Oncology Systems

Gotele Elektronik für Industrie und Wissenschaft

Nucletron France

PTW Phys.-Tech. Werkstätten

Raditec Radiation and Technology

Siemens Medical Solutions Suisse

Scanditronix – Wellhöffer

Varian Medical Systems

Sponsors

Brainlab

Siemens Suisse