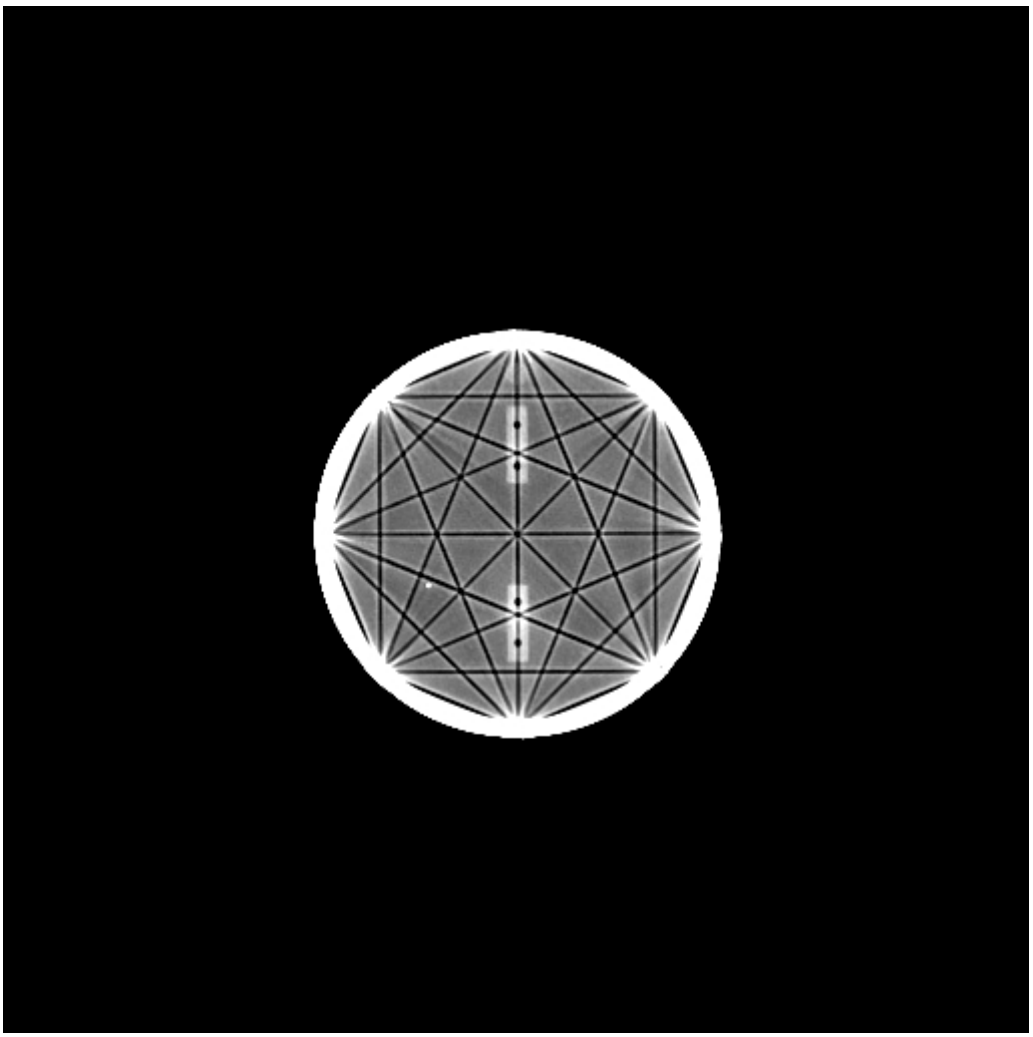
Schweizerische Gesellschaft für Strahlenbiologie und Medizinische Physik
Société Suisse de Radiobiologie et de Physique Médicale
Società Svizzera di Radiobiologia e di Fisica Medica

SGSMP
SSRPM
SSRFM



BULLETIN
1/2015

Nr. 82 April 2015

Online Bulletin: http://www.sgsmp.ch

BULLETIN 82

April 2015

Cover image:

SSRMP bulletin competition for Best Photo in Medical Physics 2015

Winning photo submission: CT QA phantom with photon starvation pattern created by eight metallic screws. ***Nick Ryckx, IRA, Lausanne***

LETTER FROM THE EDITORS

Dear Colleagues,

Spring is here and the longer days are energizing! It's a good time for starting new projects and we are very happy in the Bulletin team to be joined by a new colleague – Francesca Belosi from PSI. Welcome!

At the same time, it's the end of an era for the Bulletin. Regina Muller, who has been editing the Bulletin since issue N° 53 in April 2004 leaves after exactly 10 years. We warmly thank Regina for her work. It has been a pleasure to work with her! She will not be taking a rest after these 10 years though - instead quite the opposite - because she will join the Education Committee. We wish her lots of spring energy for the task of collecting and computing the credit points.

This month's interesting geometric cover image comes from Nick Ryckx from the IRA in Lausanne. It wins the Bulletin photo competition and reminds us that artifacts can be pretty.

We would like to thank everyone who has sent contributions for this issue. All contributions are welcome! Our email addresses are at the back of the issue. We look forward to hearing from you.

Until the next issue we wish everyone an enjoyable sunny Spring!

Nathan Corradini, Shelley Bulling, and Francesca Belosi

10 years goes fast! Regina and colleagues at the time of Bulletin N° 53 in 2004. (*Back row:* Werner Roser, Horst Nemec, Roman Menz; *Front row:* Angelika Pfäfflin and Regina Müller)

President's letter

Dear colleagues,

A new SSRMP bulletin is born with a lot of new information about different activities taking place in our field of medical physics and radiobiology. Next to the annual report of 2014 from our past president, Raphaël Moeckli, you also find some portraits of our board members. It's nice to recognize that the members of this board are not only physicists and are close to characters of "Big Bang Theory" but that they are regular human beings with their likes and dislikes, with their preferences and their choices, their hobbies and their styles. I am sure you will be entertained by this contribution and that the board members are all getting a little bit more familiar to you.

Since the last general assembly in September 2014, the SSRMP board had two board meetings. The constitution of the board took place, the chairs of the permanent committees are on duty and we are all focused on the next steps in our field. Old and new topics have been discussed. Next to formal issues like voting on IOMP chairs or EFOMP related issues, we were discussing a lot about relationships to different players working with us. Of great importance, obviously, is the on-going collaboration with our colleagues from DGMP and OEGMP with which the "Winterschule Pichl" is co-organized. At this place, I would like to express my gratitude to our SSRMP delegate, Peter Pemler (Triemli, Zürich) for all his work in the corresponding Kuratorium.

Looking forward to 2015, there are several highlights in the calendar to be mentioned. Next to the ESTRO forum meeting in Barcelona (April), there will be the SASRO meeting in Basel (June), the IOMP supported World Congress on Medical Physics & Biomedical Engineering in Toronto (June), and of course our own annual meeting of SSRMP in Fribourg (21.-22.10.15). Pierre-Alain Tercier is chairing this event and we are all looking forward to an interesting meeting in a nice city of Switzerland. I strongly advise you all to mark this event in your calendar and to actively support this meeting by submitting an abstract and by attending the meeting.

Finally, I would like to make a call for contributions to the SSRMP bulletin to all of you. Do not hesitate to submit information, which might be of interest for all of us. The editors are eager to put your contributions in the bulletin, and I want to thank them for doing a great job.

Now, enjoy this bulletin.

Peter Manser

President's annual report 2014

Dear colleagues,

Right now, the profession of medical physics appears to be caught in a paradox. We have more technologies for use in patient treatment than ever before, but we have less time than ever to understand them to the extent that we would like to – or arguably should.

Seen from another perspective, our medical colleagues and their patients must invest more trust in us than in the past because the technology has become much more complex, and thus more difficult for non-specialists to fathom. At the same time, they could be forgiven for wondering what it is that we physicists actually do.

When the technology in the department is functioning well, it seems to work as if automatically (and sometimes, indeed, it does work by itself). In reality, however, we physicists must do more and more tasks to keep the technology functional that are essentially hidden from outside view.

As soon as something doesn't work, we are immediately asked why, and stoppage can rapidly become a crisis. There is not always widespread understanding that the technology is complicated, sometimes temperamental, and requires considerable observation and diagnosis to make sure that it is functioning safely. Under such pressure, there might be a temptation for us to "relax" a bit on basic medical physics and act more like technical engineers.

Yet that is not our job! As medical physicists, our paramount responsibility is for the quality and the accuracy of patient treatments. Therefore, we should show how important our work is and how medical physics (and, indeed, basic medical physics) underpins all of these high-tech treatments. This is not being old fashioned – it's about being professionally rigorous. It worries me when candidates for the specialization in medical physics do not clearly know what a depth dose curve is and how it changes with varying parameters, or how we calculate the dose with reference beam data. The message is that if you lack basic medical physics, then you will not be able to understand what is happening when advanced technologies go wrong, and how to respond to it in a way that ensures patient safety and well-being.

This is the paradox that we face: we are increasingly seen as engineers – and there is every temptation to be engineering-oriented – when basic medical physics skills are more important than ever to keep sophisticated clinical technologies running.

I think I'm being realistic in acknowledging a real challenge we face in showing that there is a lot of hard medical physics work to keep the technology working smoothly and safely. Nevertheless, the future of medical physics remains bright. The increased complexity of care means that we will inevitably play more of a core role in radiotherapy. We should love our jobs because ultimately medical physics is very meaningful. What we are doing is really helping people. This is the main reason that I continue to wake up in the morning, knowing that I will enjoy what I will do during the day.

Looking back over the past year, here is a review of some of the activities that the SSRMP was involved in in 2014.

There were four board meetings during the year. As in previous years, there was an excellent atmosphere during the board meetings and there was unanimous support for all of the decisions taken. Among the decisions and discussions of the board, and the achievements of our society in 2014, here are some of the important points:

• BAG

We had two meetings with BAG in 2014.

The new radiation protection ordinance is under revision. We were asked by BAG to make a proposition for the definition of medical physicist that could be included in the new ordinance. We will be consulted about the content of the full new version, which will probably come out in 2015.

Another important topic is the preparation of clinical audits. Working groups have been set-up by BAG where R. Seiler, V. Vallet and H. Roser are our delegates.

• SRO

We enjoyed fruitful collaborations with SRO in 2014. First of all, SRO supported us for the annual intercomparison by encouraging centres to participate in the 2014 edition – this in spite of the fact that there was a fee for participation for the first time. I take the opportunity to thank H. Schiefer for the management of the intercomparison for many years. In 2015 he will pass the relay for the Swiss intercomparison to C. Bailat and the IRA team.

Secondly, we jointly organized an education day on the topic of “Stereotaxy and hypofractionation”. More than 100 participants attended the meeting and the quality of the invited speakers was excellent. An especially appreciated foreign invited speaker was M. van Herk from the NKI. We were honoured to have him and the other speakers in attendance. I would like to thank here D. Zwahlen for his help with the organisation of the day. We will certainly repeat a joint meeting between the societies in the future.

Thirdly, SRO agreed to participate in the education of future medical physicists by proposing teaching courses in clinical radiotherapy. The first block will be offered in 2015.

Last, but not least, as for several years now, delegates of SRO participated in the SSRMP certification exams and SSRMP delegates participated in the FMH exam in radiation oncology.

The collaboration between our two societies is extremely important and I hope that it will continue in the future.

• Professional committee (Frédéric Corminboeuf), education committee (Hans Roser) and science committee (Peter Manser)

The chairs of the three committees have issued their own reports, which were included in the last Bulletin. However, here are some of the highlights from the committees:

Eleven candidates successfully passed the examination for SSRMP certification in medical physics. A warm welcome to these new colleagues!

During the AMP meeting, D. Frauchiger, chair of the working group for the update of recommendation Nr 11, presented the new version of the most useful recommendations from our

society concerning the QA of linear accelerators. The recommendations have been accepted by the board and are valid from 1.1.2015. A warm thank you to D. Frauchiger and the members of the working group for their work.

Another active working group is the one dedicated to stereotaxy. Regular meetings are organized by A. Mack in different Swiss centres. The purpose of the meetings is to allow interested people to exchange experience and information and also to get a better understanding of who is doing what in stereotaxy.

Two research projects were awarded the Varian main prize in 2014; Dominik Henzen for forward treatment planning for modulated electron radiotherapy (MERT) employing Monte Carlo methods (Henzen et al. Med Phys. 2014, 41(3)), and Stephanie Lang and colleagues for the development and evaluation of a prototype tracking system using the treatment couch (Lang et al. Med Phys. 2014, 41(2)). There is excellent research and development work being carried out in Switzerland.

Unfortunately, no research grant was awarded in 2014.

• Annual Congress 2014

Every three years the Dreiländertagung is organized jointly with DGMP and ÖGMP. As you know, it took place in 2014 in Zürich. You can read the summary of the meeting in the previous Bulletin, but I have to say that I was very impressed by the organisation of that meeting. And that is mainly due to the president of the meeting: S. Klöck. I am certain that all participants would join me to warmly thank Stefan for the excellent organisation of the 2014 Dreiländertagung!

• 50th anniversary of SSRMP

Technically, I shouldn't mention the 50th anniversary celebrations because I was no longer president when the anniversary took place. Nevertheless, I take this opportunity to remind you that it was a very nice day in Luzern with very interesting (and sometimes crazy) talks about the past and future of medical physics. Participants were bounced forward and backward in time by fine speakers who are to be congratulated for their talks. That day, and the tangible souvenir in the form of the golden booklet "Anniversary publication", was organized by a small committee chaired by W. Roser. Colleagues who participated will remember it fondly for a long time, and that is because R. Seiler, J. Roth, W. Seelentag and W. Roser took a lot of time to make the day as nice as it was. Therefore, I would like, in the name of all members of the Society, to deeply thank them for that amazing day!

During that event, W. Seelentag and L. André received the Théophile Christen medal of SSRMP. Everyone knows these two colleagues (and if you don't know them, go to the previous bulletin to read the laudatio in their honour prepared by H. Schiefer and E. Born. Or have a look through previous Bulletins - these two colleagues have done a lot for our Society, and for a long time!). Our society is proud to honour them with that medal: they deserve it! Congratulations!

• Bulletin and website

There were three editions of the Bulletin in 2014. N. Corradini, S. Bulling, and R. Müller are warmly thanked for their work. By the way, I tell you a secret: I have to thank Shelley quite a lot, because she has corrected my poor English in all "President's letter" and "President's annual reports" that were signed by me. That is the reason why the English content was so good: I am for nothing in it… Don't forget to participate in the Bulletin by sending papers, information, feedback, etc…

The update of our website was to be my last work as president. Unfortunately, it wasn't possible to finalize it in time. However, it is already well under way and 2015 will be the year of a brand new website! During that time, W. Seelentag is still maintaining the actual website and I must say that I am impressed by his patience. So thank you Wolf for your continued work for SSRMP.

Someone once said "Quatre ans, c'est long et c'est court en même temps" (guess who and when! For a hint, have a look back to my introduction in the Bulletin). I could say the same however "cinq" instead of "quatre". Being president of our society for the past five years has been a great honour for me. More importantly, it has been a great and fascinating opportunity to see how things are progressing in each part of the society and how the relationships with our outside partners are evolving. It has been an opportunity to meet colleagues in different situations and to share (or not) opinions about strategies, organisations, decisions, etc… It has been the opportunity to take an active part in the functioning of our Society. It took some time (cinq ans, c'est long…), but it has also been a very short time (… et c'est court en même temps) to try to move things in a good direction.

I am happy to look back, with my colleagues of the board, on some successes during these past five years. In particular, the fusion registration (terminology coming from IGRT!) of SPAMP and SSRMP into one single society and the implementation of article 74 al 7 have been important achievements.

Upon my departure, my main wish is to thank all of the people that I have worked with; from my colleagues of the board (special thanks!) to the chairs of working groups, event organizers, the Bulletin editors, and many others. Thank you for the very nice moments that I have passed with you!

The new president is P. Manser and I have no doubts that with him our Society will continue to defend our profession and promote education and research in medical physics with success. I hope that Peter will enjoy the job as much as I have and I wish him every success!

Je vous remercie pour la confiance que vous m'avez témoignée durant cinq ans et je vous envoie mes cordiales salutations de Lausanne.

Raphaël Moeckli, Lausanne, le 19 mars 2015.

Committee for Education

The following members of the committee for education have been elected by the board of SSRMP:

Stephan Klöck	Universitätsspital Zürich	Organisation of the exams
Goetz Kohler	Universitätsspital Basel	Entrance criteria of the new candidates
Regina Müller	Paul Scherrer Institut	Collecting and computing the credit points
Angelika Pfäfflin	BZG Basel-Stadt	Entrance criteria of the new candidates
Valery Zilio	Hôpital de Sion	Following of the candidates
Hans W. Roser	Universitätsspital Basel	Update of the guidelines
Peter H. Cossmann	MedTech Consulting Cossmann	Member of the committee
Gerd Lutters	Kantonsspital Aarau	Member of the committee

On behalf of SSRMP board, I want to congratulate them for their nomination.

The most important tasks of the committee include accepting new candidates, guide them through their professional education, organise the exams, issue certificates and looking after the certified medical physicists continuing professional development.

But we also have other tasks, which the committee wants to address:

- Update SSRMP's guidelines for obtaining the Swiss certification in medical physics.
- Update the different annexes.
- Define what a medical physicist in Switzerland should be/will be. Setting up the notion of the "eidgenössische Fachanerkennung"

If you have questions or ideas to be added to the above list, you can always contact one of the members.

In behalf of the committee for education,

F. Corminboeuf (Clinique de la Source, Lausanne, f.corminboeuf@lasource.ch)

SAVE THE DATE !

SSRMP Continuous Education Meeting

Aarau · Friday November 13, 2015

"Dose in x-ray and nuclear medicine procedures"

Please contact Gerd Lutters for suggestions/requests on content and other information.

News from SSRMP Committee for Professional Affairs

About a year ago the board acknowledged the need to improve its regular contact with the editorial team of the SSRMP Bulletin. Jean-Yves Ray, as board member, was appointed to coordinate the efforts of the team and its new leader, Nathan Corradini, in maintaining three issues of the Bulletin per year.

In preparation for the forthcoming new SSRMP website, there is a need for new volunteers to strengthen the editorial team – if you would be interested in a role supporting the new website, please get in touch! The website has been professionally developed and looks great. We are looking for someone to keep the web page content up to date.

The Bulletin and the forthcoming new website of SSRMP are how SSRMP communicates with its members and presents itself to the outside world.

It has been decided to include the Bulletin editorial team within the professional affairs committee (PAC). The professional affairs committee, combined with the board, makes a larger team that will hopefully stimulate communication between the members of the society.

The PAC is presently composed of:
Stefano Presilla, Roman Menz and Jean-Yves Ray, members of the SSRMP board;
Shelley Bulling, Nathan Corradini and recently welcomed Francesca Belosi, members of the Bulletin editorial team.

We all look forward to welcoming a new enthusiastic colleague willing to bring in new ideas for making your website exciting. Please get in touch!

On behalf of the committee for professional affairs

Jean-Yves Ray
jean-yves.ray@ hopitalvs.ch

Presentation of the SSRMP Board

Who are we?

We all love physics

What else do we like?

Where can you meet us?

What do we prefer?

Peter Manser

Division of Med. Radiation Physics
Inselspital – University Hospital Bern

SSRMP President

Board member since: 2008

Summer or winter	Summer
Wine or beer	Beer
Fish or meat	Meat
City trip or beach holidays	City trip (where beach is close)
Reading classical books or ebooks	Ebooks
Photons or electrons	Photons
Car or public transport	Public transport
Night out or couch potato	Couch potato
Ski or snowboard	< 2013: Ski (since then "Après Ski")
Android or iOS	iOS
Fondue or Raclette	Fondue
City or country life	Country life
A song you don't want to miss	Run like hell (Pink Floyd)
Dose calculation or dose measurement	Dose calculation
A physicist which impressed you	R. Feynman
A physics formula or concept you like	Monte Carlo methods

Fred Corminboeuf

Centre Radio-oncologie, La Source

Chair Education Committee

Board member since: 2007

Summer or winter	Winter
Wine or beer	Wine
Fish or meat	Meat
City trip or beach holidays	City trip
Reading classical books or ebooks	ebooks
Photons or electrons	Photons
Car or public transport	Public transport
Night out or couch potato	Night
Ski or snowboard	Ski
Android or iOS	Android
Fondue or Raclette	Fondue
City or country life	Country life
A song you don't want to miss	London Calling
Dose calculation or dose measurement	Dose measurement
A physicist which impressed you	P.A.M. Dirac
A physics formula or concept you like	Maxwell's equations

Where can you meet us?

Raphaël Moeckli

Institute of Radiation Physics
CHUV, Lausanne

Chair Science Committee,
Vice president

Board member since 6 years

Summer or winter	Summer
Wine or beer	Wine
Fish or meat	Meat
City trip or beach holidays	City trip
Reading classical books or ebooks	Classical books
Photons or electrons	Photons (definitely)
Car or public transport	Both
Night out or couch potato	Night out
Ski or snowboard	Ski (definitely)
Android or iOS	iOS (highly definitely)
Fondue or Raclette	Both
City or country life	Both
A song you don't want to miss	Any of Rolling Stones, Pink Floyd, Lou Reed or Manfred Mann (and many others)
Dose calculation or dose measurement	Dose calculation
A physicist which impressed you	Feynman, van Herk, Germond
A physics formula or concept you like	$\Delta x \Delta p \geq \hbar/2$ $D(r) = \int_E \int_V T_e(r') \cdot h(E, r - r') d^3r' dE$

Jean-Yves Ray

Radio-Oncologie, Sion

Chair of the committee for professional affairs

Board member since: 2010

Summer or winter	Winter
Wine or beer	Wine
Fish or meat	Fish
City trip or beach holidays	City trip
Reading classical books or ebooks	Classical
Photons or electrons	Photons
Car or public transport	Car
Night out or couch potato	Night out
Ski or snowboard	Snowboard
Android or iOS	Android
Fondue or Raclette	Fondue
City or country life	Country life
A song you don't want to miss	Gloria – U2
Dose calculation or dose measurement	Dose measurement
A physicist which impressed you	My secondary school teacher
A physics formula or concept you like	Bernoulli's Theorem

Daniel Vetterli

Inselspital / Radio-Onkologiezentrum Biel

SSRMP Secretary

Board member since: 2003

Summer or winter	Both, no preference
Wine or beer	Wine
Fish or meat	Meat
City trip or beach holidays	No preference, both not my favorites
Reading classical books or ebooks	Classical books
Photons or electrons	Photons
Car or public transport	Car
Night out or couch potato	Couch potato
Ski or snowboard	Ski
Android or iOS	What is this?
Fondue or Raclette	Raclette
City or country life	Country life
A song you don't want to miss	Bridge over troubled water
Dose calculation or dose measurement	measurement
A physicist which impressed you	Marie Curie
A physics formula or concept you like	Bohrsche Atommodell

Who are we?

What do we prefer?

What's our style?

Who are we?

What do we prefer?

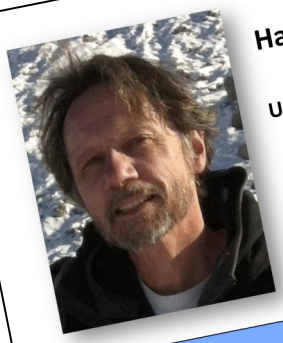
Werner Roser

Paul Scherrer Institute

SSRMP Treasurer

Board member since: 2001

Summer or winter	Indian summer
Wine or beer	No alcohol
Fish or meat	Both
City trip or beach holidays	It depends on the season
Reading classical books or ebooks	The latter is slightly increasing
Photons or electrons	Protons
Car or public transport	Fast E-bikes are more flexible
Night out or couch potato	Couch w/o potatoes
Ski or snowboard	Snowshoeing
Android or iOS	iOS
Fondue or Raclette	Both alternating
City or country life	Where is the next city from here?
A song you don't want to miss	Several songs from the 80's
Dose calculation or dose measurement	No dose is even better
A physicist which impressed you	My teacher at school
A physics formula or concept you like	$\pi = \sqrt{6}\sum n=1\uparrow\infty \square 1/n\uparrow 2$



Hans W. Roser

Universitätsspital Basel

Board member

Board member since: 2010

Summer or winter	Winter
Wine or beer	None
Fish or meat	Fish
City trip or beach holidays	Neither – but mountain hikes
Reading classical books or ebooks	Classic books
Photons or electrons	Neither – pions
Car or public transport	Public transport
Night out or couch potato	Neither – just sit and wait
Ski or snowboard	Ski (K2, length 204 cm)
Android or iOS	Don't own a mobile phone
Fondue or Raclette	Fondue
City or country life	City for living – countryside for leisure time
A song you don't want to miss	Bruce Springsteen – Jersey Girl
Dose calculation or dose measurement	Neither – dose estimates
A physicist which impressed you	Fritz Seiler
A physics formula or concept you like	G = 8 π T , although never really understood the formula

What do we like?

What's our style?

We all love physics

Where can you meet us?

What do we like?

We all love physics

Where can you meet us?

Roman Menz

Universitätsspital Basel

Member of committee for professional affairs

Board member since: 2014

Summer or winter	Summer
Wine or beer	Wine
Fish or meat	Meat
City trip or beach holidays	Neither, but mountain hikes & climbs
Reading classical books or ebooks	Both
Photons or electrons	Photons
Car or public transport	bike
Night out or couch potato	Couch potato
Ski or snowboard	Ski
Android or iOS	iOS
Fondue or Raclette	Fondue
City or country life	Both, depending on occasion
A song you don't want to miss	Geboren um zu leben (Unheilig)
Dose calculation or dose measurement	Dose measurement
A physicist which impressed you	Prof. Dirk Trautmann
A physics formula or concept you like	Schrödinger equation

What's our style?

What do we prefer?

Who are we?

Stefano Presilla

Servizio di Fisica-medica
EOC, 6500 Bellinzona

SSRMP board member

Board member since: 2014

Summer or winter	Summer
Wine or beer	... both Wine, if a choice is mandatory
Fish or meat	Meat
City trip or beach holidays	Beach .. with some city excursions
Reading classical books or ebooks	ebooks
Photons or electrons	Photons
Car or public transport	Public transport ... waiting for teleportation
Night out or couch potato	couch potato ... $\propto$ exp. (years)
Ski or snowboard	Ski
Android or iOS	Android
Fondue or Raclette	Fondue
City or country life	Country
A song you don't want to miss	father and son, Cat Stevens
Dose calculation or dose measurement	Measurements
A physicist which impressed you	Straton of Lampsacus
A physics formula or concept you like	$G(p,T) = H - TS$

Brief Report of the Medical Imaging Workgroup Meeting held January 13th 2015 in Bern

The MIP Workgroup is divided in three subgroups which regularly report to the workgroup.

Contributions came from the fluoroscopy group and nuclear medicine group.

For the Fluoroscopy group Roland Simmler gave an overview over his measurements on over-apron and eye lens dosimetry in cardiology labs. He found that over-apron doses give an approximate estimate for the eye lens dose of the personnel. Strong deviations in the dose to the lens were seen depending on the amount of shielding that was available and the correctness of its use. Yearly doses of up to 50 mSv for an individual could be extrapolated from his findings.

For the Nuclear Medicine group Konstantinos Zeimpekis explained ways in which to harmonize PET and SPECT values among institutions in the EARL-EANM accreditation program. He also showed how the list mode analysis of image quality in PET and SPECT can lead to a reduction of 25 – 50 % of activity to the patient. Different achievable levels were presented for PET with *time-of-flight* and *resolution recovery* and those without. In the subsequent discussion it was confirmed that nonetheless the maximum achievable level of dose reduction is strongly dependent upon the image quality that is tolerated by the physician.

Jörg Binder (JB) presented intermediate versions of two Leporello flyers initiated by SGR for the radiation protection of staff and patients during fluoroscopy, that should appear with SSRMP and SGR as common authors.

During its previous meeting that took place September 10th 2014 after the "Dreiländertagung" the MIP workgroup discussed in detail criteria for a recommendation on good clinical practice and applied radiation protection in interventional radiology, cardiology and angiology. These should serve as input for the SGR flyers. JB demonstrated that all of the major ideas and suggestions of the MIP workgroup expressed in this first draft were incorporated in the revised version of the flyers. But due to the fact that the first draft consisted of three densely written pages, shortenings and simplifications had to take place in order to keep the format of a brief practical guideline. This meant that sometimes reasons and arguments given in the first draft had to be cut out. Also for the purpose of improved distinction and comprehension SGR involved a professional science journalist to revise the wording which meant that the original expressions were adjusted in the versions of the flyers presented here.

The group felt a strong need for further improvement in wording and parts of the content. So a task force was created consisting of Yvonne Käser, Hans Roser, Roman Menz and Jörg Binder in order to perform the editorial work.

In the meantime a broad consensus is achieved concerning the content and the board of SGSMP gave its confirmation to these recommendations. It can be seen as a great success that the two societies finalized these common projects.

The last topic was a discussion in how far standardization in the activities of medical physicists working in the field of Art. 74.7 StrlSchV would be achievable. Especially standardization in the field of fluoroscopy was seen to be difficult due to the strongly differing demands of the supervised institutions although some basic criteria should be commonly taken care of.

The next meeting of the group will be: Tuesday, the 21st April 2015

Jörg Binder, KSA

CALENDAR 2015

24-28 April Barcelona, ES	3rd ESTRO FORUM *http://www.estro.org/congresses-meetings/items/3rd-estro-forum*
13th May **Lausanne, CH**	Cours de perfectionnement destine aux experts en radioprotection *http://www.chuv.ch/ira/ira_home/ira-fomation/ira-formation-continue/ira-cours-exp-perf.htm*
7-12 June Toronto, CA	World Congress on Medical Physics & Biomedical Engineering *http://wc2015.org/*
12th June **CH**	General assembly of the Association romande de radioprotection (ARRAD) *http://www.arrad.ch/*
10-12 June Lille, FR	54th Scientific Meeting of the French Society for Medical physics *http://sfpm-js2015.sciencesconf.org/*
11-13 June **Basel, CH**	**19th Annual SASRO Meeting** *http://www.sasro.ch/node/3*
14-15 June Colorado, USA	AAPM Summer School: Proton Therapy: Physical Principles and Practice *http://www.aapm.org/meetings/2015SS/*
12-16 July Anaheim, USA	AAPM 57th Annual Meeting http://www.aapm.org/meetings/2015AM/default.asp
9-12 September Marburg, DE	German Medical Physics Society 46th Annual Meeting *http://www.dgmp-kongress.de/*
21-22 October **Fribourg, CH**	**SSRMP Annual Meeting 2015** *http://www.sgsmp.ch*

And please, if you participate in any conference / meeting, think of writing a few lines or sending a picture for the "recent meetings" section.

THANK YOU!

Rüti

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Rüti is a town of about 12 thousand inhabitants and belongs to the canton Zürich. It touches the border towards the canton St. Gallen. The centre of Radiotherapy in Rüti is operated as an AG from the partners - Spital Uster, GZO (Spital Wetzikon), ZeTuP AG (Tumorzentrum Rapperswil-Jona), the Spital Linth and the Kantonsspital Winterthur.

The aim was to strengthen this area in terms of medical support for cancer patients. The idea to set up such a centre came up about 3 years ago. Up to the start of this centre the patients needed to be treated at the Kantonsspital Winterthur. In this respect it is no longer necessary to travel all the way down to the KSW, which is most appreciated from the patients of this region. The centre was opened at the beginning of October 2014 with the first patient being treated on the 2nd of October 2014.

At the end of November 2014, there was a public day for interested people to visit and discuss with the experts from the centre. People have been very interested in this event given that about 2500 people took the chance to visit the new building and listen to the various talks.

To operate the new centre all staff, namely MDs, Physicists, MTRAs, MPA, came out of the Radio-Oncology of the Kantonsspital in Winterthur. In this respect it will be also possible for staff of the KSW to work at a different location and be able to backup, for example staff in terms of holidays or other absences. Given that ZRR is equipped with nearly the same equipment as in Winterthur it was

easier to get this new centre operational and keep it going in the future.

Right from the start this new centre was designed to be linked to the Kantonsspital Winterthur technically. Although the ZRR could be operated on its own the idea was to provide a safe and reliable solution. Given that any vital equipment would have a serious breakdown it would be possible to treat the patients without any time delay and replanning on the treatment machines at the Kantonsspital Winterthur. In this respect the machines on both sites are matched. Data management is handled at the Kantonsspital Winterthur, so all data will be backed up there, with no need to have another setting in this respect.

A cyberfish communication system has been installed to communicate between the two centres easily. This communication system is frequently used to discuss plans online or to share weekly teaching lessons. It is also used to get in touch with other clinics and hospitals.

The ZRR is equipped with a Varian True Beam accelerator, Eclipse Planning Systems and a Philips Brilliance Big Bore CT with a LAP Dorado 4 system designed as virtual planning unit.

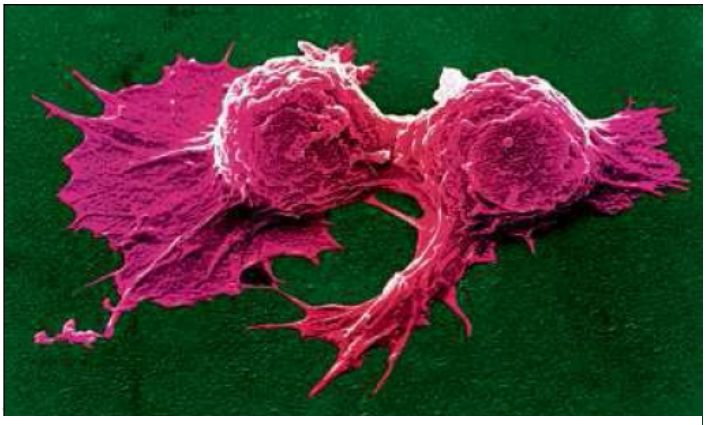
We treat nearly all locations, many with the help of IMRT and Arc technique. Lung tumours are treated using gated technique. Right from the beginning most of the documentation is paperless. It is the idea to go completely paperless in the future.

In summary, we are happy to provide the patients in this region with an up-to-date treatment.

Bruno Schnekenburger

Des tests pour éviter les chimios inutiles

Le Temps
Sciences & Environnement
SUISSE samedi 31 janvier 2015
Pascaline Minet



Cellules de cancer du sein en division. Pour décider du traitement, les oncologues étudient diverses caractéristiques des tissus cancéreux, dont le taux de prolifération des cellules.

Faut-il effectuer une chimiothérapie, ou pas? Cette question se pose parfois lors de la prise en charge du cancer. Elle est lourde de conséquences. Car renoncer à ce traitement peut accroître la mortalité. Mais dans certains cas, les chimiothérapies n'apportent pas de bénéfice au patient, alors qu'elles s'accompagnent d'importants effets secondaires. Face à ce choix, les médecins disposent désormais d'un nouvel outil: des tests génomiques pratiqués directement sur le tissu cancéreux afin d'évaluer sa dangerosité. Plusieurs de ces tests, destinés au cancer du sein, sont pris en charge depuis le 1er janvier 2015 par l'assurance obligatoire de soins. Beaucoup d'autres sont par ailleurs en développement.

Oncotype DX, Endopredict, MammaPrint et Prosigna sont quelques-uns de ces nouveaux tests remboursés par l'assurance obligatoire. Ils seront proposés dans certains cas aux femmes souffrant d'un cancer du sein, après ablation de leur tumeur par chirurgie. Dans cette situation, l'oncologue doit en effet décider s'il donne à sa patiente un traitement complémentaire pour diminuer le risque de récidive: radiothérapie, hormonothérapie ou chimiothérapie. Le bénéfice de ces approches est évalué en fonction des caractéristiques du cancer: taille de la tumeur, rapidité de la prolifération des cellules, sensibilité ou non aux hormones, présence ou non d'une protéine appelée HER2 qui le rend très virulent, etc.

Mais ces critères ne permettent pas toujours d'évaluer avec certitude le risque de récidive. Dans le doute, la tentation existe de prescrire une chimiothérapie. Pourtant, l'utilité de ce traitement n'est de loin pas systématique: «La recherche montre que moins de 10% des femmes ayant un cancer du sein au stade précoce tirent vraiment bénéfice d'une chimiothérapie», indique Kim Popovits, directrice exécutive de la société américaine Genomic Health, qui commercialise Oncotype DX.

Le traitement n'est pourtant pas anodin. «La chimiothérapie se traduit par de la fatigue et un affaiblissement des défenses immunitaires, mais aussi par des nausées, des douleurs articulaires et des troubles de la sensibilité», détaille Alexandre Bodmer, oncologue au Centre du sein des Hôpitaux universitaires de Genève (HUG). Les conséquences du traitement peuvent se faire ressentir pendant de longs mois et avoir un impact autant sur la vie personnelle que professionnelle. Sans compter les frais liés au traitement. D'après les chiffres fournis par Genomic Health, le coût moyen d'une chimiothérapie pour le cancer du sein dépasse les 15 000 francs par patiente en Suisse.

Comment mieux cibler celles qui en bénéficieront vraiment? C'est ici que les nouveaux tests entrent en jeu. Ils se basent sur l'étude de l'expression de certains gènes dans le tissu cancéreux.

Oncotype DX, par exemple, analyse l'expression de 21 gènes, Prosigna celle de 50 gènes. «Nous avons passé en revue plusieurs centaines de gènes tumoraux pour savoir lesquels déterminent le mieux l'évolution de la maladie», explique Phillip Febbo, responsable médical de Genomic Health. Pour effectuer l'analyse, un échantillon du tissu cancéreux est envoyé au laboratoire. Les résultats reçus par l'oncologue prennent la forme d'un score qui indique le risque de récidive de la maladie. Le test Oncotype DX apporte aussi directement une évaluation du bénéfice de la chimiothérapie. Ce test, l'un de ceux dont l'efficacité a été la mieux évaluée, est actuellement au centre d'essais cliniques menés en Suisse, notamment par le Groupe suisse de recherche clinique sur le cancer (SAKK), dont les résultats n'ont pas encore été publiés. Une autre étude de plus petite taille, menée sur une soixantaine de patientes, a par ailleurs eu lieu aux HUG, en partenariat avec la Ligue genevoise contre le cancer. «Les résultats, encore préliminaires, montrent que l'utilisation d'Oncotype DX a permis de réorienter l'attitude thérapeutique dans environ un cas sur deux. Et dans six cas sur dix, ce changement d'attitude a consisté à ne pas prescrire de chimiothérapie», relate Alexandre Bodmer, qui souligne que ces données sont cohérentes avec celles fournies par le laboratoire lui-même.

Indéniablement utile pour certaines patientes, le test n'a pas pour autant réponse à tout. «L'analyse est très informative lorsque le score d'une tumeur est soit très bas, soit très élevé. Dans le premier cas, on peut renoncer avec sûreté à la chimiothérapie. Dans le second cas, on sait qu'il est utile d'y recourir. Mais il existe une zone d'ombre lorsque les scores sont intermédiaires: le test ne permet alors pas de trancher, et il faut recourir aux méthodes traditionnelles pour orienter le traitement», explique Alexandre Bodmer, qui considère ce test comme un outil parmi d'autres pour le choix thérapeutique.

«L'objectif de notre étude est justement de déterminer dans quels cas le test est le plus indiqué», indique l'oncologue de l'Hôpital universitaire de Zurich, Bernhard Pestalozzi, chargé de l'étude du SAKK. La question est d'importance car ces tests, qui nécessitent des analyses sophistiquées, sont très coûteux: 3850 francs pour Oncotype DX, par exemple. «Notre test permet toutefois de réduire les coûts de santé en évitant de coûteuses chimiothérapies inutiles», souligne Kim Popovits.

Les tests destinés au cancer du sein sont pour l'heure les seuls remboursés en Suisse, mais d'autres pourraient suivre. Le secteur est en effet en plein développement. Aux Etats-Unis en particulier, un grand nombre de sociétés privées mettent au point des analyses basées sur le même principe, destinées à d'autres types de cancer: prostate, rein, côlon, etc. Or des évaluations ont montré que certains de ces tests avaient une efficacité douteuse. Ce qui s'explique en partie par le fait qu'ils n'ont pas besoin d'autorisation de mise sur le marché comme les médicaments, mais doivent simplement répondre à des exigences de qualité.

Par ailleurs, la recherche apporte progressivement de nouvelles informations qui pourraient encore affiner le ciblage des traitements oncologiques. Ainsi, il y a peu, une étude parue dans la revue Molecular Oncologyrévélait l'intérêt pour le pronostic du cancer du sein d'un marqueur dit épigénétique, qui rend compte de l'organisation de l'ADN dans les cellules cancéreuses. «Ce domaine de recherche est très actif, mais pour l'heure les tests diagnostic utilisables en pratique clinique sont peu nombreux», met en garde Bernhard Pestalozzi.

Breast Biopsies Leave Room for Doubt, Study Finds

Abby Howell chose to have a biopsy when a mammogram showed some calcification two years ago. Instead of being definitive, the biopsy found atypia — abnormal duct cells that are not cancerous but which some doctors recommend having removed

The New York Times
Health
by DENISE GRADY
MARCH 17, 2015

Breast biopsies are good at telling the difference between healthy tissue and cancer, but less reliable for identifying more subtle abnormalities, a new study finds.

Because of the uncertainty, women whose results fall into the gray zone between normal and malignant — with diagnoses like “atypia” or “ductal carcinoma in situ” — should seek second opinions on their biopsies, researchers say. Misinterpretation can lead women to have surgery and other treatments they do not need, or to miss out on treatments they do need.

The new findings, reported Tuesday in JAMA, challenge the common belief that a biopsy is the gold standard and will resolve any questions that might arise from an unclear mammogram or ultrasound.

In the United States, about 1.6 million women a year have breast biopsies; about 20 percent of the tests find cancer. Ten percent identify atypia, a finding that cells inside breast ducts are abnormal but not cancerous. About 60,000 women each year are found to have ductal carcinoma in situ, or D.C.I.S., which also refers to abnormal cells that are confined inside the milk ducts and so are not considered invasive; experts disagree about whether D.C.I.S. is cancer.

“It is often thought that getting the biopsy will give definitive answers, but our study says maybe it won’t,” said Dr. Joann G. Elmore, a professor at the University of Washington School of Medicine in Seattle and the first author of the new study on the accuracy of breast biopsies.

Her team asked pathologists to examine biopsy slides, then compared their diagnoses with those given by a panel of leading experts who had seen the same slides. There were some important differences, especially in the gray zone.

An editorial in JAMA called the findings “disconcerting.” It said the study should be a call to action for pathologists and breast cancer scientists to improve the accuracy of biopsy readings, by consulting with one another more often on challenging cases and by creating clearer definitions for various abnormalities so that diagnoses will be more consistent and precise. The editorial also recommended second opinions in ambiguous cases.

A second opinion usually does not require another biopsy; it means asking one or more additional pathologists to look at the microscope slides made from the first biopsy. Dr. Elmore said doctors could help patients find a pathologist for a second opinion.

A surgeon not involved with the study, Dr. Elisa Port, a co-director of the Dubin Breast Center and the chief of breast surgery at Mount Sinai Hospital in Manhattan, said the research underlined how important it is that biopsies be interpreted by highly experienced pathologists who specialize in breast disease.

“As a surgeon, I only know what to do based on the guidance of my pathologist,” Dr. Port said. “Those people behind the scenes are actually the ones who dictate care.”

In Dr. Elmore's study, the panel of three expert pathologists examined biopsy slides from 240 women, one slide per case, and came to a consensus about the diagnosis.

"These were very, very experienced breast pathologists who have written textbooks in the field," Dr. Elmore said.

Then the slides were divided into four sets, and 60 slides were sent to each of 115 pathologists in eight states who routinely read breast biopsies. The doctors interpreted the slides and returned them, and the same set was sent to the next pathologist. The study took seven years to complete.

The goal was to find out how the practicing pathologists stacked up against the experts. The task was tougher than actual practice, because in real cases pathologists can consult colleagues about ambiguous findings and ask for additional slides. They could not do so in the study.

There was good news and bad news. When it came to invasive cancer — cancer that has begun growing beyond the layer of tissue in which it started, into nearby healthy tissue — the outside pathologists agreed with the experts in 96 percent of the interpretations, which Dr. Elmore called reassuring. They found the vast majority of the cancers.

For completely benign findings, the outside pathologists matched the experts in 87 percent of the readings, but misdiagnosed 13 percent of healthy ones as abnormal.

The next two categories occupied the gray zone. One was D.C.I.S. For this condition, the pathologists agreed with the experts on 84 percent of the cases. But they missed 13 percent of cases that the experts had found, and diagnosed D.C.I.S. in 3 percent of the readings where the experts had ruled it out.

The finding is of concern, because D.C.I.S. sometimes becomes invasive cancer, and it is often treated like an early-stage cancer, with surgery and radiation. Missing the diagnosis can leave a woman at increased risk for cancer — but calling something D.C.I.S. when it is not can result in needless tests and treatments.

The second finding in the gray zone was atypia, in which abnormal, but not cancerous, cells are found in breast ducts. Women with atypia have an increased risk of breast cancer, and some researchers recommend surgery to remove the abnormal tissue, as well as intensified screening and drugs to lower the risk of breast cancer.

But in the study, the outside pathologists and the experts agreed on atypia in only 48 percent of the interpretations. The outside pathologists diagnosed atypia in 17 percent of the readings where the experts had not, and missed it in 35 percent where the experts saw it.

"Women with atypia and D.C.I.S. need to stop and realize it's not the same thing as invasive cancer, and they have time to stop and reflect and think about it, and ask for a second opinion," Dr. Elmore said.

Abby Howell, 57, who lives in Seattle, two years ago had some calcifications show up on a mammogram, which are sometimes a sign of cancer. She was given the option of just mammograms every six months or having a biopsy. She chose the biopsy, thinking it would be definitive. But instead, it showed atypia.

Ms. Howell, who has a master's degree in public health, looked up the condition and realized it was unclear whether those odd-looking cells would ever lead to cancer. Surgery was recommended, but she decided to watch and wait instead. So far, her mammograms have been normal, but the experience has shaken her peace of mind.

"If I had to do it all over again, I wouldn't have jumped for the biopsy," Ms. Howell said. "I really regret it. In a way it's made more anxiety in my life."

ON THE MOVE

Stefano Presilla

Dear Colleagues,

Starting from January 2015, the Radioprotection Unit of Ente Ospedaliero Cantonale ticinese and the Medical Physics Unit of Oncology Institute of Southern Switzerland, merged together giving life to the Medical Physics Service of EOC.

The new central Service is involved in radioprotection, medical imaging, nuclear medicine and radiotherapy.

It has been a privilege for me to assist in its birth and now to hold his hand to lead him.

Stefano Presilla, Servizio di Fisica Medica,
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PS: the photo is not taken from a moment of my working life.

WELCOME

Cristina Vite

After I graduated in Physics at the Università degli Studi di Milano, I started a stage at the CCR in Ispra, Italy for a research project on bone structure. During my time in Ispra, I realized I was interested in the physics applied to medical aspects.

In 2002, I joined the University Hospital of Varese for my medical physics specialization training. I mostly worked on quality assurance and patient radioprotection aspects in the radiology department, from computed tomography to mammography. The experience was challenging and satisfying. Afterwards I had the opportunity to work on the cyclotron team at the University Hospital San Martino in Genoa, Italy, improving my knowledge of radiopharmacy and nuclear medicine. In 2011, I started working at the Cyberknife® Center, part of the Centro Diagnostico Italiano in Milan, gaining competency in stereotactic radiotherapy.

I have always enjoyed focusing my interests on innovation and improving medical physics.

I joined the Clinica Luganese radiotherapy team on November 1st 2014.

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I M P R E S S U M

Publisher

Schweizerische Gesellschaft für Strahlenbiologie und Medizinische Physik (SGSMP/SSRPM/SSRFM)

Printing Press

Druckerei PSI

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C A L L F O R A U T H O R S

Also, you are invited to participate in the construction of our bulletins. Of desirability are all contributions that could be of interest to members of our society, such as

- ✓ Reports of conferences, working group meetings, seminars, etc.
- ✓ Reports on the work of various committees and commissions
- ✓ Succinct results of surveys, comparative measurements etc.
- ✓ Short portraits of individual institutions (E.g. apparatus equipment, priorities of work, etc.)
- ✓ Reports on national and international recommendations
- ✓ Short Press Releases
- ✓ Photos
- ✓ Cartoons & caricatures
- ✓ Announcement of publications (E.g. books, magazines)
- ✓ Announcement of all kinds of events (E.g. conferences, seminars, etc.)
- ✓ Short articles worth reading from newspapers or magazines (if possible in the original)
- ✓ Member updates (E.g. appointments, change of jobs, etc.)

The easiest way to send your document is as a MS Word document via email to one of the editor addresses above.

Deadline for submissions to Bulletin No. 83 (02/2015) : 07.2015

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