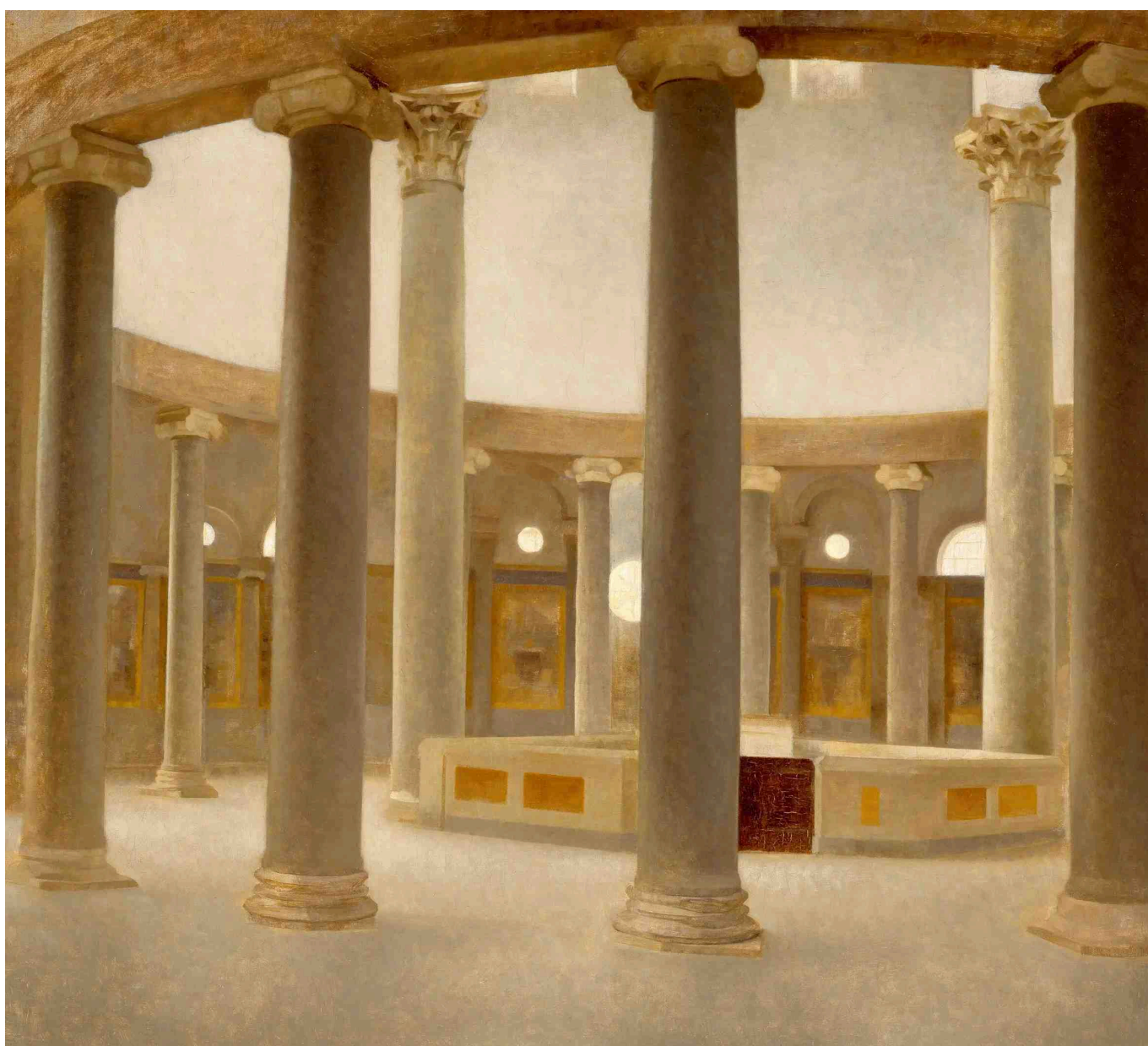


BULLETIN

September 2026



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From the Church S. Stefano Rotondo in Rome, 1903
oil on canvas, **Vilhelm Hammershøi** (1864 - 1916)
(Odense, DK, Kunst Museum Brandts)

Letter from the Editors

Dear Colleagues,

Summer holidays are already behind us, and it is time to get back to work, and back to a new issue of the Bulletin! This September edition is a particularly full one.

The next SSRMP Annual Meeting is approaching, and this year it will also be time for the Board elections. In this issue, you will find a short presentation of all the candidates. We hope this will help you get to know them a little better before meeting and voting, in St. Gallen.

Another important topic is the new SSRMP Salary Survey. It only comes around every few years, and good participation is essential to obtain useful and representative results. So please take a few minutes to fill it in! The more of us who participate, the more valuable the results will be for our community.



On the scientific side, you will find the results of the annual TLD intercomparison. For the first time this year, the study was extended to medium-energy X-ray beams, in addition to the usual photon and electron beams.

And of course, this issue also includes the usual reports from meetings and courses, with news from Pichl, the Swiss Congress of Radiology and the latest AMP meeting.

Quite a lot to read for this return from the summer break! We hope you will enjoy this new issue. And once you are done, why not leave the Bulletin on the table in your coffee room? It might be a good way to make it travel a little further... and maybe reach a few colleagues who don't usually read it !

Marie & Davide

PRESIDENT'S LETTER



Dear colleagues,

We can already feel that summer is coming to an end. I hope you all survived the heat waves! This year, I took several shorter holiday breaks. It certainly has its advantages: once you return to work, you know that another week off is just around the corner. However, it also has some drawbacks, notably the constant accumulation of emails and work resulting from repeated periods of absence.

As many of you know, this will be my last Presidents letter, as elections will be held during the next General Assembly (GA) and I have already served the maximum allowed four years as President and now it's time to pass the torch.

Before discussing the elections, I would like to take a few moments to share some reflections on my experience as President.

I can honestly say that I have greatly enjoyed the time spent with my colleagues on the Board, as well as the opportunities to meet and interact with many of you throughout the years. Whether during our Annual Meetings, AMP meetings, continuing education courses, or other events, these occasions to come together have always been rewarding. I value

our community and remain convinced that, by working together, we can continue to strengthen our profession.

I would like to sincerely thank all Board members for their support and commitment. They have been there throughout the entire mandate, giving their time and energy to help move our Society forward. I am aware that members naturally have high expectations of our Society and its activities. Nevertheless, it is important to remember that the Board's work is carried out on a voluntary basis, alongside demanding professional responsibilities, and that every member contributes with the genuine intention of serving our community to the best of their ability.

As you will see in this bulletin, more colleagues are willing to become involved in the Society. It is reassuring and encouraging to see new volunteers stepping forward, ready to contribute and take on the responsibilities associated with Board positions and other roles. I would like to thank them in advance and wish them every success.

PRESIDENT'S LETTER

Constructive feedback is always valuable, and the Board has always welcomed members' comments and suggestions. At the same time, our Society thrives because members are willing to invest their time and effort. I therefore encourage anyone interested in shaping the future of our Society to become or stay actively involved and contribute to its continued development, whether as a Board member, a committee member, a participant in a working group, or simply by reaching out to share ideas and perspectives that can help us move forward.

As you know, our next opportunity to meet will be during the 58th SSRMP Annual Meeting in St. Gallen, and I am very much looking forward to it. During the meeting, the General Assembly will take place, and, among other important agenda items, the elections will be held. If you would like to participate in the voting process, please make sure to attend the GA.

The organizing team in St. Gallen is undoubtedly preparing an excellent scientific and social programme. Do not forget to submit your contributions, as the deadline of 30th September is fast approaching.

Before the Annual Meeting, there will also be several educational opportunities. Two SSRMP Education Courses are being organized: one on Modern Treatment Planning Systems, titled "From Dose Calculation to Treatment Automation", and another on Medical Physics in Nuclear Medicine. I would like to thank the organizers for providing our colleagues with these valuable opportunities to expand their knowledge and expertise in medical physics. Just before the summer, we held our AMP meeting, which included several interesting

presentations. One of them focused on the update of the Diagnostic Reference Levels (DRLs) for PET/CT examinations. The presentation clearly demonstrated the considerable effort invested by many of our medical physicists. Establishing and updating DRLs would not be possible without their expertise and dedication, and we all recognize the crucial role these reference levels play in dose optimisation.

The AMP meeting also provided a valuable opportunity to receive an update on the revision of the Dosimetry Ordinance. A representative from the Federal Office of Public Health joined us to present the proposed changes and explain their implications. Such exchanges are an excellent way to stay informed about ongoing regulatory developments.

Last but certainly not least, the meeting included an overview of the activities carried out by the various working groups. These presentations once again highlighted the tremendous amount of work performed by our members and their ongoing contribution to the advancement of our Society.

You have probably already received an invitation to participate in the salary survey. In my view, this survey is particularly important, as it helps us, among other things, to better understand salary levels across the different regions of Switzerland and identify potential disparities. I therefore encourage you to take a few minutes to complete it.

I look forward to seeing many of you soon!

Marta Sans Merce
SSRMP President

SSRMP Annual Meeting & Abstract Reminder

St. Gallen, 5th - 6th of November 2026



Deadlines & Key Dates

The SSRMP Board has officially resolved to introduce a registration fee for the upcoming conference.
Late/On-site Registration (from Oct 29): An additional CHF 60 will be charged on top of the regular fee.

Category	Early Bird until Sept 18	Regular Sept 19 - Oct 2	Dinner Register by Oct 28
SSRMP Member	60	120	60
Student	60	60	40
Non-member	120	180	60

Abstract Submission Deadline: **30.9.2026**

<https://indico.psi.ch/event/18339/abstracts/>

Board Elections 2026 St. Gallen, 5th of November 2026

Dear colleagues,

Our next board election will take place during our General Assembly on Thursday, 5th November, as part of the Annual Meeting in St. Gallen.

According to the SSRMP Statutes, elections of the board members take place every second year. During these elections, the President and the Chairs of the standing committees (Science, Education and Professional Committee) are also elected and are, by definition, part of the board. The current board has decided, the future board will consist of a total of 10 members including those four fixed positions.

In the following pages you will find some short presentations of the candidates in alphabetical order for the various positions. We hope they will be helpful in getting to know them a little better before the assembly!





Francesca Belosi

Candidate for :
Member of the board

I'm a medical physicist at Kantonsspital Winterthur where, besides the clinic, I've been primarily involved in implementing an in-vivo-dosimetry program for our department, auditing our PSQA systems and lately in investigating plan complexity and possible approaches for controlling it. Indeed I'm part of an ESTRO working group focused on launching a multi-institutional plan comparison exactly with this purpose. I was editor of the SSRMP Bulletin for many years and greatly enjoyed this opportunity to get in touch with many people in the SSRMP community, besides enjoying the writing for itself. I have been part of the SSRMP Board for the past 2 years and I would like to keep offering my contribution to the society in this context.

Areas of Interest

Patient specific QA, complexity index, in-vivo dosimetry, treatment planning, workflow standardization

Education

- SSRMP Certification in Med Physics
- MAS in Medizinphysik (ETH)
- Master in Applied Physics (Bologna, IT)
- Bachelor in Physics (Bologna IT)

Profession

- As of 2024, Med Phys, Kantonsspital Winterthur
- 2020-2024, Med Phys, Universitätsspital Zürich
- 2015-2020, Med Phys, Paul Scherrer Institut
- 2013-2015, trainee Med Phys, Ente Ospedaliero Cantonale



David Blumer

Candidate for :
Member of the board

I am the head of the Medical Physics RadOnc group at Spital Thurgau, that oversees the linacs at the cantonal hospitals of Frauenfeld and Münsterlingen. Besides the clinical routine (which is ever increasing in time and complexity due to more and more reirradiation and adaptations), my main areas of interest are workflow optimization and the swiss tariff system.

I have been an expert for the SSRMP oral exams since 2021 and I am a member of the SSRMP working group on the "Update of Guidelines for Medical Physics Specialization".

Outside of work, I support local radiology institutes and physiotherapists by continuing to play rugby.

Areas of Interest

Tariffs, Workflow, Treatment planning, SSRMP Certification

Education

- CAS Management im Gesundheitswesen (HSG)
- SSRMP Certification
- MAS in Medizinphysik (ETHZ)
- Master in Physics (ETHZ)
- Bachelor in Physics (ETHZ)

Profession

- As of 2020, Head of Medical Physics in RadOnc, Team RadiologiePlus (Spital Thurgau)
- 2014-2020, Head of Medical Physics in RadOnc, Kantonsspital Münsterlingen
- 2011-2014, Trainee Medical Physicist, Hirslanden



Tommaso Stefano Carzaniga

Candidate for :
Member of the board

I am a board-certified medical physicist currently serving as Technology Officer and Radiation Protection Officer at SWAN Isotopen AG. My professional journey bridges the gap between clinical medical physics and the industrial production of radiopharmaceuticals and cyclotron operations. Recently, I completed an Executive MBA at the University of St. Gallen, which has further sharpened my skills in strategic management, infrastructure development, and organizational leadership.

I maintain a strong connection to the Swiss medical physics community, where I previously served as an SGRRC delegate contributing to the definition of national diagnostic reference values. I would like to bring this diverse perspective combining clinical practice, industrial radiopharmaceutical operations, and management training to the SSRMP Board to actively support and shape the future of our society.

Areas of Interest

Patient specific QA, complexity index, in-vivo dosimetry, treatment planning, workflow standardization

Education

- Executive MBA University of St. Gallen (HSG) (2026)
- SSRMP Certification in Medical Physics (2020)
- Gefahrgutbeauftragte GGB Klasse 7 (PSI – 2020)
- PhD in Particle Physics (University of Bern - 2019)
- MAS in Medizinphysik (ETH, 2016)
- Master in Applied Physics (Politecnico di Milano 2014)
- Master in Engineering (École Centrale de Lille 2012)
- Bachelor in Applied Physics (Politecnico Milano 2012)

Profession

- As of 2023, Technology Officer, SWAN Isotopen AG [Bern]
- As of 2017, Radioprotection Officer, SWAN Isotopen AG [Bern]
- As of 2023, Teacher, Radioprotection for Medical Doctors, Ipso Bildung [Basel]
- 2018-2020, Med Phys, ROSOL (Rad Onc) [Solothurn]



Silvia Fabiano

Candidate for :
Member of the board

I am a certified medical physicist specializing in radiation oncology. I moved to Switzerland almost ten years ago and have since been based at University Hospital Zurich, where I completed my PhD and clinical training and currently work in the Department of Radiation Oncology. Brief experiences at PSI and CHUV have further broadened my perspective on medical physics research and clinical practice in Switzerland.

My main clinical interests and responsibilities include treatment planning, adaptive radiotherapy, and brachytherapy. I also contribute to streamlining quality assurance procedures, developing and optimizing clinical workflows, and providing training for Varian customers. As a member of the SSRMP Early Career Working Group, I work to bridge the gap between education and professional practice.

I would be pleased to bring this experience, along with a collaborative approach, enthusiasm, and commitment, to the SSRMP as a member of its Board.

Areas of Interest

treatment planning, adaptive radiotherapy, brachytherapy, quality assurance, clinical workflow optimization

Education

- SSRMP Certification in Medical Physics
- PhD in Physics (UZH)
- MAS in Medical Physics (ETH)
- MSc in Physics (Catania, IT)
- BSc in Physics (Catania, IT)

Profession

- 2023-present, Medical Physicist, University Hospital Zurich
- 2021-2023, Trainee Medical Physicist, University Hospital Zurich



Marie Fargier-Voiron

Candidate for :
Member of the board

I have been working as a Medical Physicist at Swiss Medical Network since 2017, across the radiotherapy departments of Genolier and Geneva, and from time to time, I also enjoy making a few professional trips to Zurich. Crossing the Röstigraben is not an issue for me :-). Besides my clinical work, I have been involved in major projects, from new treatment systems and OIS implementation to the launch of a brand-new radiotherapy department. Working in the private sector, I would be happy to bring my perspective to the Board and contribute to its diversity, alongside colleagues from different professional backgrounds and regions of Switzerland.

As editor of the SSRPM Bulletin, I have discovered how much I enjoy sharing experiences and connecting people within our community. I would now love to take this involvement a step further and bring that same enthusiasm to the SSRPM Board !

Areas of Interest

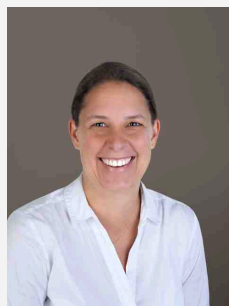
Quality management and patient safety, automation in radiotherapy, Adaptive Radiotherapy, Education and knowledge sharing

Education

- SSRMP Certification
- PhD in Medical Physics (Centre Léon Bérard / CREATIS, Lyon, France)
- Medical Physics Residency (DQPRM), INSTN, France
- MSc in Medical Physics, Grenoble Alpes University, France
- Engineering Degree (PHELMA), Grenoble INP

Profession

- As of 2024, Chief deputy medical physicist SMN
- As of 2017, Med Phys, Swiss Medical Network, RadOnc
- 2015-2017, Resident in medical physics, Hospices Civiles de Lyon



Yvonne Käser

Candidate for :
Member of the board
Chair of professional affairs

With my company PhysMed Consulting GmbH I provide external medical physics services in all areas of medical imaging: Radiology, Interventional Radiology, including interventional imaging in the operating theatre, as well as Nuclear Medicine. My customers range from small private radiologies to medium-sized hospitals and thus I work in very different professional environments.

I've been an active board member of SSRMP for ten years and chair of the professional affairs committee for four years. In addition I have been and am still active in different SSRMP working groups where I very much enjoy the exchange with my colleagues. There still is work left and I would very much like to continue shaping our professional environment as medical physicists.

Areas of Interest

Medical imaging, Radiation Protection, Professional Affairs, Education

Education

- SSRMP Certification in Medical Imaging
- Medical physics (University Helsinki)
- Master in Physics (ETH Zürich)

Profession

- Since 2012 Medical Physics Expert and CEO, PhysMed Consulting GmbH, Imaging
- 2006 – 2012 Medical Physicist, Physico Medicae Oy (Finland), Imaging
- 2004 – 2010 Medical Physicist in Training, Helsinki University Hospital (Finland)



Nikolaos Koutsouvelis

Candidate for :
Member of the board
President of SSRMP

I have been responsible for the Radiation Oncology Medical Physics team at Geneva University Hospitals (HUG) since May 2020. During the first years, our team focused on rethinking and optimizing patient care workflows, with particular emphasis on treatment quality and efficiency. Currently, research is an important part of our work, and we dedicate at least 20% of our time to research and development activities. Several R&D projects are ongoing within the team, including FLASH and conventional radiobiology studies, reduction of treatment-related side effects in schwannoma patients, development of a SFRT software tool, expansion of CyberKnife tracking indications, VMAT-based Total Body Irradiation, optimization of breast treatment planning, optimisation of QA and PSQA processes, assessment of MRI distortion impacts on SRS, develop a system to deal with cyberattacks and radiotherapy risk analysis.

Areas of Interest

SRS, SFRT, FLASH, Small animal irradiations, Treatment planning.

Education

- SSRMP Certification in Medical Physics
- SFPM Certification in Medical Physics (France)
- MSc Medical Physics (UJF, Grenoble)
- MSc Applied Physics – Nuclear Physics, Optoelectronics&Lasers (NTUA, Athens Polytechnic)
- Bachelor in Applied Mathematics and Physics (NTUA, Athens Polytechnic)

Profession

- 2020-Present : Lead Medical Physicist at Hopitaux Universitaires de Geneve – Geneva, Switzerland
- 2015-2020 : Medical Physicist at Hopitaux Universitaires de Geneve – Geneva, Switzerland
- 2012-2015: Lead Medical Physicist at Clinique des Grangettes – Geneva, Switzerland
- 2011-2012: Medical Physicist at Clinique des Grangettes – Geneva, Switzerland
- 2010-2011: Trainee medical physicist at Timone University Hospital and “Nord” hospital – Marseille, France



Arturs Meijers

Candidate for :
Member of the board
Chair of Committee of Educational Affairs

I am the Chief Medical Physicist (Clinical) at the Centre for Proton Therapy at the Paul Scherrer Institute (PSI), Switzerland's national proton therapy facility. Over fifteen years, my career has spanned clinical service, industry and academic research, including leading the medical physics team that brought the first proton therapy centre in the Netherlands into clinical operation.

I focus on translating advanced research into tangible gains in patient safety and treatment quality, through projects involving adaptive workflows, robust optimization and automated independent dose verification for patient specific quality assurance.

Education and mentorship are central to my practice. I contribute to the PTCOG Subcommittees and the ESTRO European Particle Therapy Network, and mentor students and medical physicists working toward certification. As Chair of Educational Affairs, I would apply this experience to support knowledge sharing and professional development across the SSRMP community.

Areas of Interest

Management of treatment uncertainties, proton radiography, 4D dose reconstruction, thoracic indications, automation of quality assurance workflows, outcome modelling.

Education

- PhD in Medical Sciences, cum laude, University of Groningen
- Professional MSc in Medical Physics, Riga Technical University
- Professional BSc in Medical Physics, Riga Technical University

Profession

- 2022 to Present, Chief Medical Physicist / Clinical, Paul Scherrer Institute
- 2020 to 2022, Senior Product Marketing Manager, Varian Medical Systems
- 2016 to 2020, Proton Physics Team Leader, University Medical Centre Groningen
- 2012 to 2016, Medical Physicist and Product Development Manager, Ion Beam Applications
- 2008 to 2012, Medical Physicist, Riga East University Hospital

Silvan Müller

Candidate for :

Member of the board
Chair of Committee of Scientific Affairs

I have been working in the Department of Radiation Oncology at Inselspital Bern for 11 years with the first eight years primarily in research and the last three years mainly in the clinical setting. My research involved the development and validation of treatment planning tools, including optimization and dose calculation methods for novel radiotherapy techniques. These projects ranged from mixed photon-electron radiotherapy to dynamic trajectory radiotherapy. Now in the clinical setting, I am still focussed on treatment planning having recently overseen the implementation of auto-segmentation and introduction of Lattice radiotherapy in clinical workflows. This is in addition to my responsibilities in running brachytherapy. Beyond my clinical and research activities, I have been serving as Vice President of the SSRMP Board for the past two years. I also chaired the Scientific Committee of the SSRMP Conference 2022 in Thun and have been a member of the Varian Prize Committee for the past four years. I would now like to continue serving on the SSRMP Board but as Chair of Scientific Affairs. With my experience in research, clinical practice, and active involvement in the Society, I am confident that I can make a valuable contribution to the SSRMP and help strengthen its scientific activities.

Areas of Interest

treatment planning, optimization, dose calculation, brachytherapy

Education

- SSRMP Certification in Medical Physics
- PhD thesis, Medical Physics (ETH / Inselspital Bern)
- MAS in Medical Physics (ETH)
- Master in Physics (ETH)
- Bachelor in Physics (ETH)
- Apprenticeship in IT (Oerlikon)

Profession

- Since 2022, Medical Physicist, Inselspital Bern
- 2019-2022 Post-Doc, Medical Physics, Inselspital Bern
- 2015-2018, PhD-Student, Medical Physics, Inselspital Bern
- 2008-2012, Part-time as Software / Process engineer, Esec AG



Marta Sans Merce

Candidate for :

Member of the board

I am a Swiss-Spanish dual national, married and mother of three young adults. I studied Physics at the University of Barcelona, where I obtained my Bachelor's and Master's degrees before completing a PhD in Particle Physics through LMU Munich based at CERN. I transitioned to medical physics, attracted by the opportunity to apply physics directly to healthcare and patient benefit.

I am an SSRMP-certified medical physicist specialized in imaging and currently head of the X-ray imaging medical physics team at Geneva University Hospitals. Our team ensures the safe, efficient, and compliant use of imaging technologies while supporting clinical practice, quality assurance, equipment management, education, and innovation. My research activities have primarily focused on dosimetry and radiation protection at both the Swiss and European levels.

Over the past 4 years, I have served as President of the SSRMP supporting the Society's development and the advancement of our profession. To ensure continuity, I would like to remain a Board member for the next two years.

Areas of Interest

CT, interventional radiology and cardiology, dosimetry and radiation protection for both patient and healthcare staff.

Education

- SSRMP Certification in Medical Physics in Imaging.
- PhD in Particle Physics, Ludwig Maximilian University (LMU) Munich, Germany, based at CERN.
- Bachelor's and Master's Degrees in Physics, University of Barcelona (UB), Spain.

Profession

- 2017- Present: Lead Medical Physicist in X-ray imaging team, Hôpitaux Universitaires de Genève (HUG)– Geneva.
- 2004-2017: Scientific collaborator at IRA, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne.
- 2001-2004: Fellow at CERN, Geneva, working on the LHC beam and transfer lines.



Anisoara Socoliuc Toquant

Candidate for :
Member of the board
Chair of professional affairs

I am a medical physicist with 14 years of experience in radiation oncology, currently working at Radio-Onkologiezentrum (ROZ) Biel-Seeland-Berner Jura AG. Over these years I have developed expertise across clinical physics, treatment planning, quality assurance, and adaptive radiotherapy, with a consistent focus on bringing new technologies into clinical practice.

My current work centres on workflow standardisation, automation, and clinical data analysis, drawing on SQL and SSRS reporting, ESAPI scripting, and the ARIA API, as well as the evaluation of AI-supported radiation oncology solutions. I particularly enjoy translating clinical needs into practical, reproducible tools that colleagues can rely on.

Since 2021 I have been a member of the SSRMP web editorial group, a role I have very much enjoyed. As a Board member, I would be glad to support the activities and vision of the medical physics society, and to help Swiss centres share knowledge, particularly around safe adoption of new technologies.

Areas of Interest

clinical implementation of advanced technologies, role of medical physicists, automation.

Education

- SSRMP Certification in Medical Physics
- MAS in Medical Physics, ETH Zurich
- PhD in Physics, University of Basel
- Continuing education in AI in Healthcare and eHealth-MIT

Profession

- Since 2025, Medical Physicist, ROZ Biel/Bienne (Rad Onc)
- 2022-2024, Med Phys, Hôpital de la Tour, Geneva (Rad Onc)
- 2019-22, Med Phys, Clinique de La source, Lausanne (Rad Onc)
- 2012-19, Med Phys, Kantonsspital St. Gallen (Rad Onc)



Véronique Vallet

Candidate for :
Member of the board

I work in the Department of Radiation Oncology at CHUV - Lausanne, where I started my training in 2007 and now serve as deputy head physicist. Beside my clinical and management duties, I have been actively involved in several projects. Recently, the implementation of a new OIS allowed me to contribute to the optimization of clinical workflows and to work closely with the IT department. I could apply my practical skills during the implementation of a contact brachytherapy program.

Education and training of future medical physicists are important to me. I am a member of both the educational committee and the SSRMP working group responsible for updating the guidelines for medical physics specialization. In addition, I have served as an examiner for the SSRMP oral examinations since 2019.

I have been a member of the SSRMP Board since 2022 and serve as Secretary. I would be pleased to continue my involvement for another two-year term in order to contribute to the continuity of the Board's activities and support the integration of new members.

Outside the hospital basement, I enjoy spending time in the mountains, whether skiing, climbing, or cycling.

Areas of Interest

clinical implementation of advanced technologies, role of medical physicists, brachytherapy, clinical workflow

Education

- SSRMP Certification in Medical Physics
- PhD thesis, Laboratoire de Génie Médical (EPFL)
- Dipl. Physik (ETHZ)

Profession

- Since 2013, Deputy Chief Medical Physicist, Centre Hospitalier Universitaire Vaudois, Lausanne
- 2009-2013, Medical Physicist, CHUV, Lausanne
- 2007-2009, Trainee Medical Physicist, CHUV, Lausanne
- 2004-2007, R&D Engineer, DeBiotech SA, Lausanne
- 2000-2004, PhD-Student, EPFL, Lausanne

Results of the TLD Intercomparison for Megavoltage Units 2026

1. Introduction

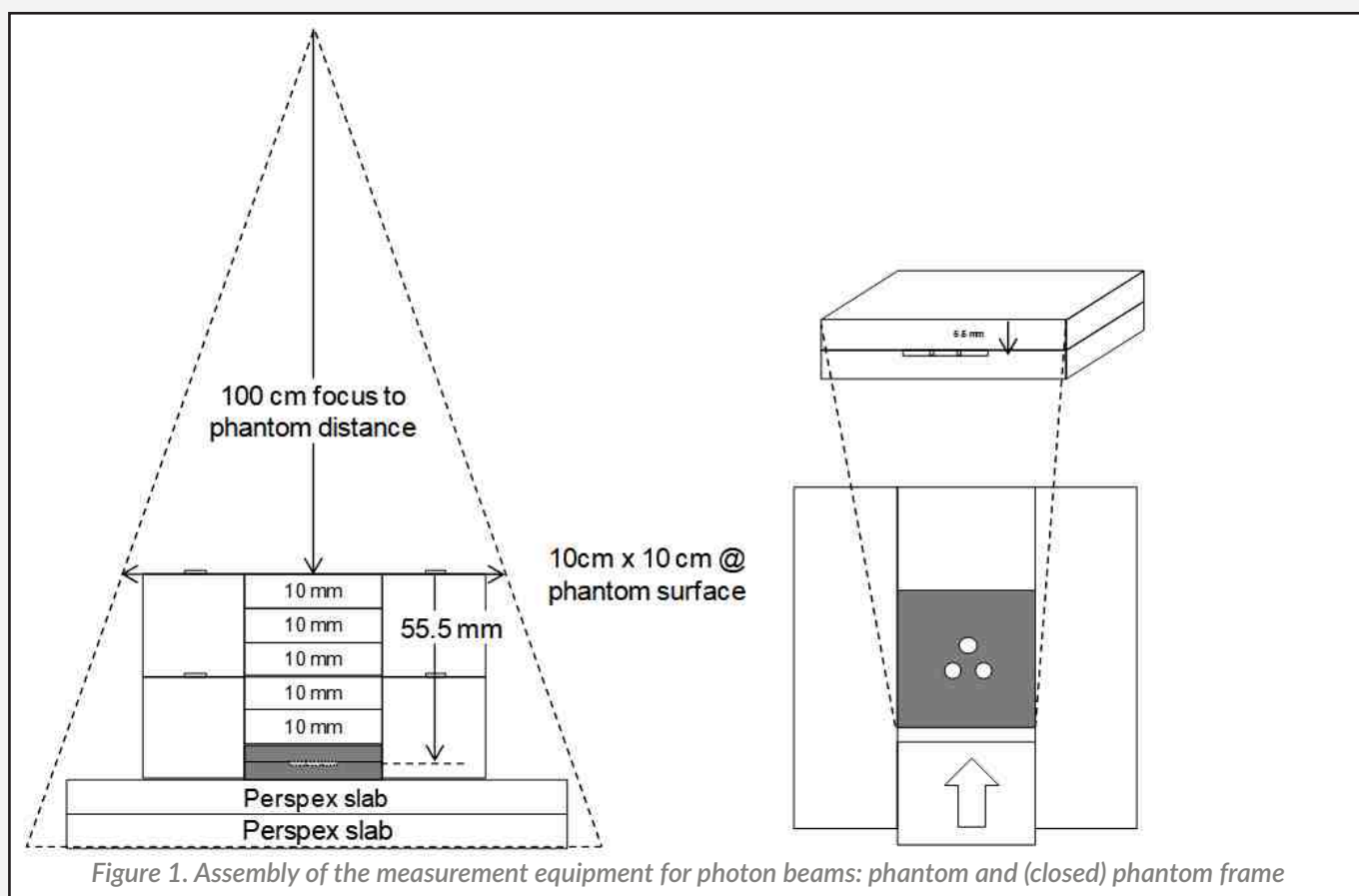
The Institute of Radiation Physics (IRA) in Lausanne is mandated by the Swiss Society for Radiobiology and Medical Physics (SSRMP) to organize an annual dosimetry intercomparison for the gantry driven linacs. The 2026 intercomparison followed the same procedure and used the same equipment to carry out the measurements as previous years. The aim was also the same, i.e. to check the absolute dosimetry of static photon and electron beams. But, this year, in addition, we introduced audits of medium energy X ray beams, i.e. beams with generating potentials between 100 kV and 300 kV.

Thirty-one institutions took part in the 2026 intercomparison with a total of 147 beams checked, including 102 photon beams (48 beams with flattening filter (FF) and 54 flattening filter free beams (FFF)),

24 electron beams and 21 medium energy X ray beams. Like past audits, the requirement was to check each photon energy used in the institution only once. For example, if two machines are matched, only one machine had to be checked, similarly when two machines are equipped with a 6X beam, only one has to be checked.

2. Material and methods

The same TLD-100 disks (4.5 mm diameter, 0.9 mm thickness, Harshaw Inc.) and solid water phantoms as those for the photon dosimetry intercomparisons of 2011 to 2025 have been used. For photon beams, the solid phantom was composed of two stacked Perspex phantom frames. The inner square was 4 cm in length, the outer square 10 cm x 10 cm. The frames have been filled with five plain RW3 (PTW)



Freiburg) slabs, and one slab containing three TLD. The slab dimensions are 40 mm x 40 mm x 10 mm. The measurement depth in solid water was 5.55 cm. The phantom was placed on Perspex or water equivalent material (at minimum 5 cm). This arrangement is shown schematically in Figure 1.

For electron beams, the same material was used. The solid phantom was composed of one or two stacked Perspex phantom frames. The frames have been filled with the plain RW3 slabs and the slab containing the TLD, positioned at the appropriate depth by combining plain slabs of 5 and 10 mm thickness. The phantom was placed on Perspex or water equivalent material (at minimum 5 cm). This arrangement is shown schematically in Figure 2.

For medium energy X ray beams, the same material was used but the solid phantom described above was extended on all sides by 5 cm Perspex (Figure

3). RW3 blocks were piled up so that the effective measurement point of the TLD group was 19.5 mm below the surface of the uppermost square slab and the water equivalent depth was 20 mm.

Each TLD slab contains 3 TLD chips located on a circle 5 mm away from the center. A correction was applied on the TLD reading to account for the slight difference between solid water and water. For this reason, the user was asked to assume that the phantom was fully water equivalent and provided for sufficient scatter, as would be the case in a large water phantom.

A TLD annealing oven and a Harshaw 5500 reader have been used, similarly to earlier intercomparisons. Thanks to the cobalt-60 irradiation facility available at IRA in the calibration laboratory, we could use a less time-consuming procedure insuring the appropriate metrological traceability. We calibrated the cobalt irradiator in terms of absorbed dose to

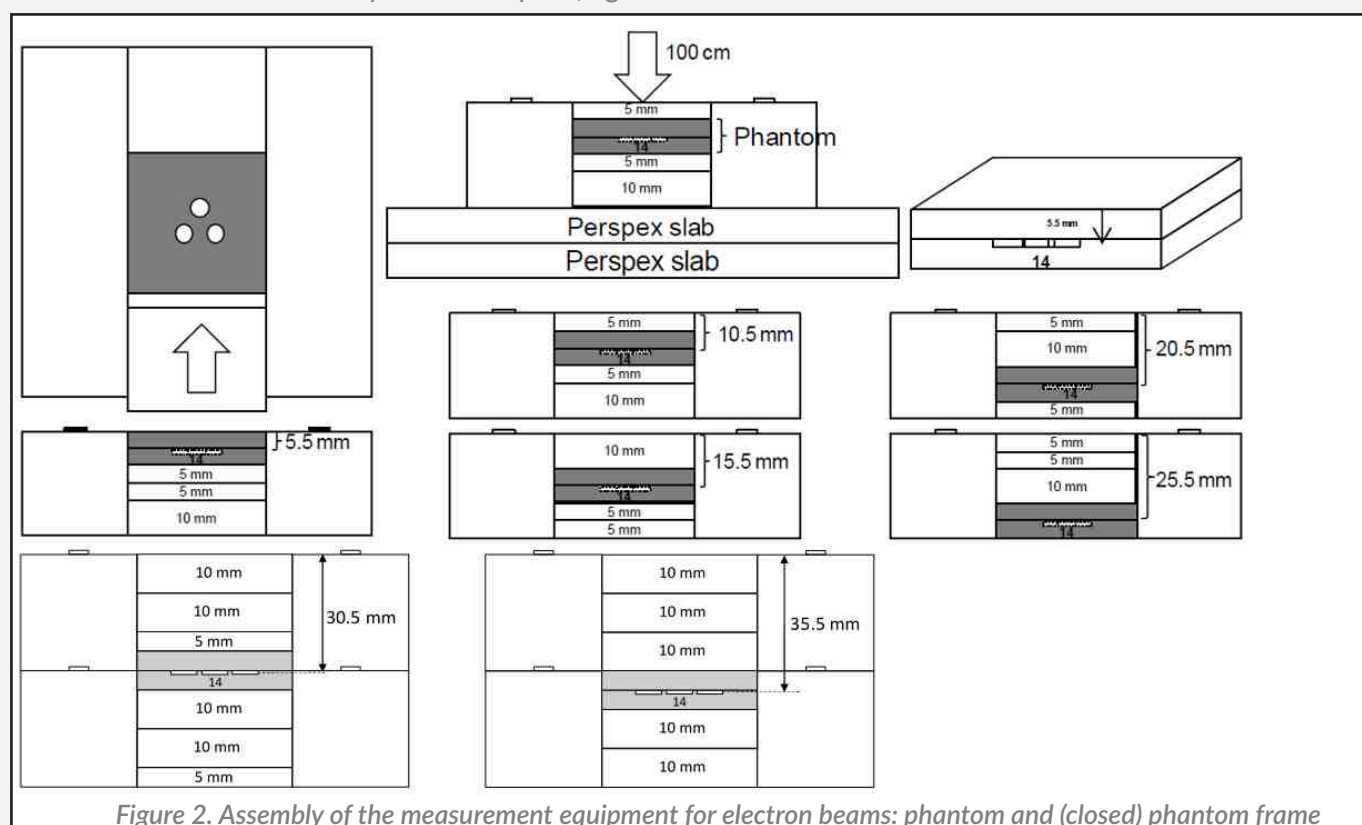
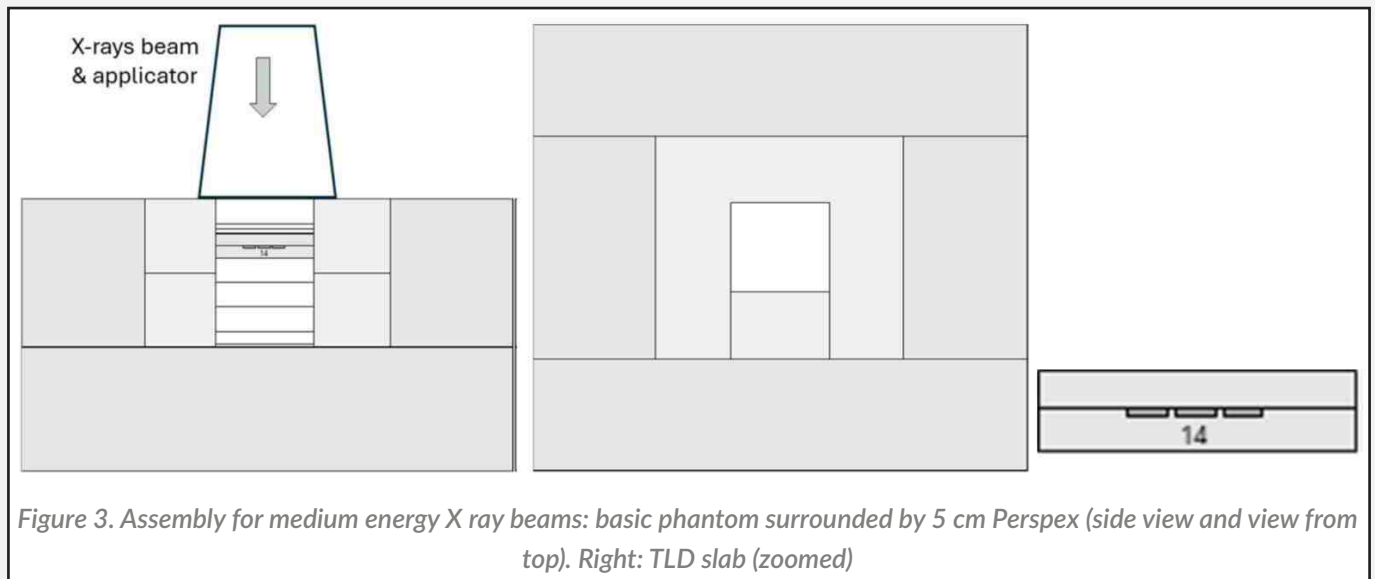


Figure 2. Assembly of the measurement equipment for electron beams: phantom and (closed) phantom frame



water for a given radiation quality against the IRA reference dosimeters calibrated at METAS.

In 2021, a direct calibration of the TLD dosimetry system was carried out at METAS for the photon beams. This calibration was used again this year. For electron beams, the same calibration was used as before. This factor is in fact independent of the energy and its value is 1.056 ± 0.008 (relative to Co-60). For medium energy X rays, the calibration is traceable to the German primary laboratory PTB. This allows us to prepare reference TLD at IRA for each series of measurements in the participant's beams.

The absolute dosimetry with TLD requires several corrections: non-linearity of the TLD response with dose, dependence of photon energy and fading effect. The non-linearity and fading corrections have been carefully determined at IRA. The energy dependence of the TLD response is included in the calibration of the cobalt irradiator. The correction associated to the replacement of the water phantom by the solid water phantom is also included in the calibration of the irradiator.

For the high energy photon and electron irradiations, the measurement conditions in the solid phantom

were as follows: source-to-surface distance 100 cm, field size 10 cm x 10 cm at the surface of the phantom, dose to the TLD close to 1.00 Gy.

The participants were expected to provide their own value of dose (stated dose). It had to be specified at the measurement depth for photon beams (5.55 cm), and at the depth of maximum dose for electron beams. The percentage depth dose was also to report. This allowed us to compare the TLD dose value at the measurement depth with the stated dose at the maximum.

For medium energy X rays, the participants reported the specified dose at 2 cm depth, the focus-to-surface distance and the field dimensions of the applicator, and the half-value layer.

Four runs of measurements were necessary for the 31 participants. A calibration of all the TLD was carried out before and after each run, in order to determine precisely the individual sensitivities of all the TLD chips. For each run, a series of 10 TLD ("reference TLD") in each group of 50 TLD were irradiated to the reference dose of 1 Gy at the cobalt irradiator on the irradiation date recommended to the participants. Then these 50 TLD were all read in one batch and the dose delivered to every chip was

calculated from the ratio of its indication to the mean indication of the 10 reference TLD. Finally, the corrections mentioned above were applied.

In June 2026, the TLD dosimetry system was audited in the blind and reference irradiation service offered by the IAEA Dosimetry Laboratory (DOL) to Institutions conducting dosimetry audits in radiotherapy (one photon beam and one electron beam). The preliminary results show good agreement (within 1.4%).

3. Results

The agreement between the stated dose and the TLD measured dose is evaluated with the ratio “stated/measured” (noted D_s/D_m) and taking into account the TLD measurement accuracy. For photon beams, an agreement within 4% is considered a satisfactory check. For electron and X ray beams, the criterion is 6%.

The probability for the D_s/D_m ratio to fall outside of the intervals 0.96-1.04 and 0.94-1.06 only due to the normal fluctuations of the TLD signal is low. Indeed, these fluctuations have been investigated for the uncertainty evaluation, and the observed standard deviation was low.

3.1 Electron beams

The mean D_s/D_m ratio for the different beam energies is given in Figure 4. The deviations from the unity are probably due to statistical fluctuations. The distribution of the D_s/D_m ratio for all the electron beams is illustrated in Figure 5. The statistics of the D_s/D_m ratio for all the electron beams are given in Table 1.

The mean value of D_s/D_m for all electron beams is 1.008, with a large statistical dispersion. No systematic bias between the participants’ dosimetry and the TLD dosimetry can be concluded, for all the energies and for any particular energy.

100% of the results are in the interval 0.94-1.06, i.e. within $\pm 6\%$, which is very satisfactory. In addition, 75% of the results are in the interval 0.97-1.03, i.e. within $\pm 3\%$.

3.2 Photon beams

We checked 48 conventional beams with flattening filter (FF) and 54 flattening filter free beams (FFF). The mean D_s/D_m ratio for the different beam types and energies is given in Figure 6 with the standard deviation. This repartition seems to show that all deviations from the unity can be attributed to statistical fluctuations.

The distribution of the D_s/D_m ratio for all the photon beams is illustrated in Figure 7.

The statistics of the D_s/D_m ratio for all the photon beams are given in Table 2.

The mean value of D_s/D_m for all photon beams is 1.003. No significant bias is observed between the participants’ dosimetry and the TLD dosimetry. No difference is observed between the mean values of D_s/D_m for FF beams and FFF beams (1.003 and 1.002).

For 96% of the tested beams, the D_s/D_m value is in the interval 0.96-1.04, i.e. within 4%, which is judged satisfactory. In addition, 84% of the results are in the interval 0.98-1.02, i.e. within 2%.

The two centers with beams for which the deviation was slightly above 4% received a recommendation to check the reference dosimetry and the stated dose.

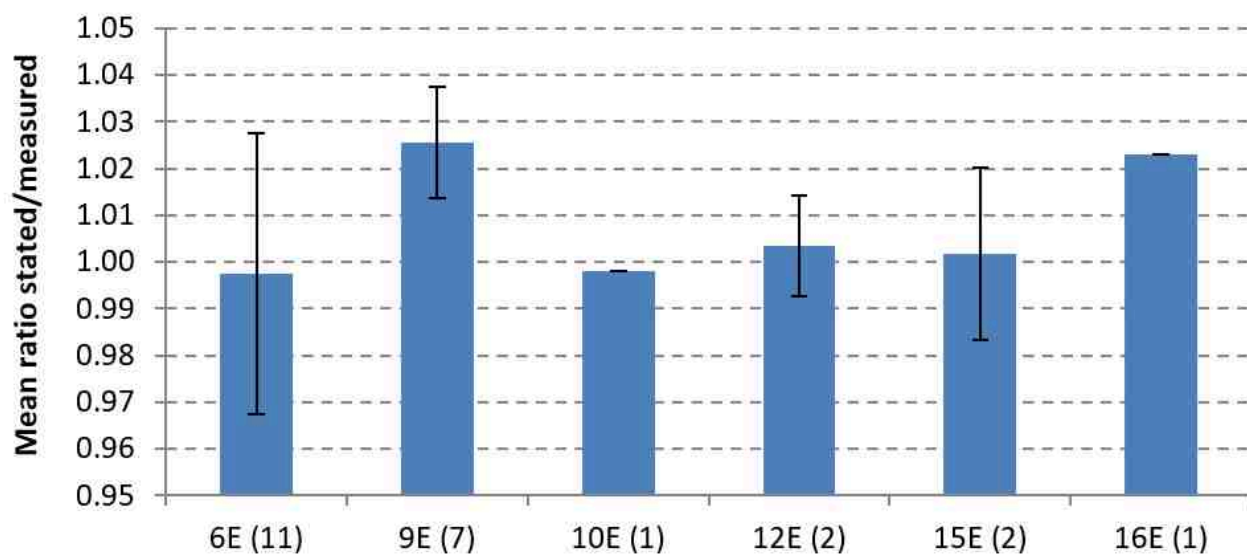


Figure 4: Electron beams: mean Ds/Dm ratio for the different radiation qualities.
The number of beams is given in brackets. Error bars=std dev.

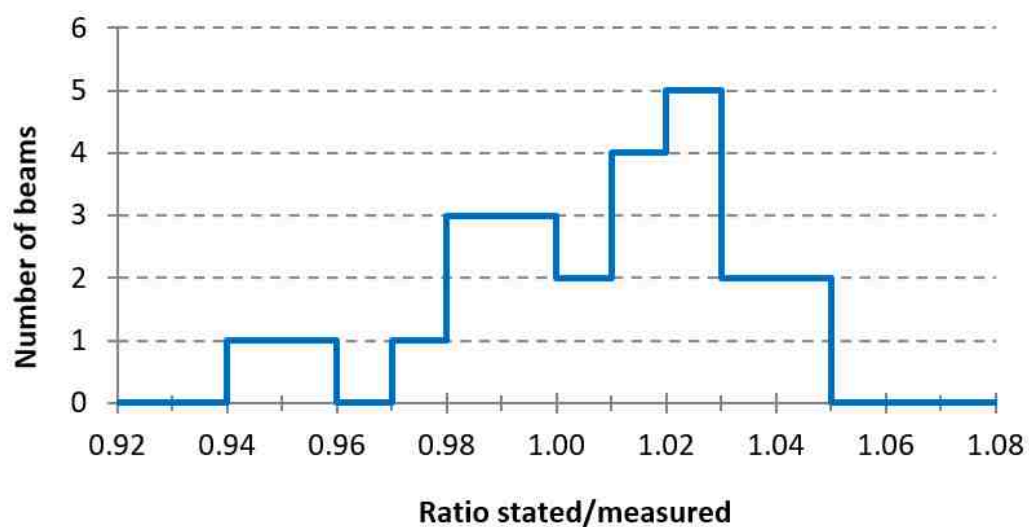


Figure 5: Electron beams: histogram of Ds/Dm ratio for all 20 beams

Parameter	Electron beams
Beam number	24
Mean	1.008
Std dev.	2.5%
Minimum	0.949
Maximum	1.049

Table 1: Electron beams: observed ratio "stated dose/measured dose"

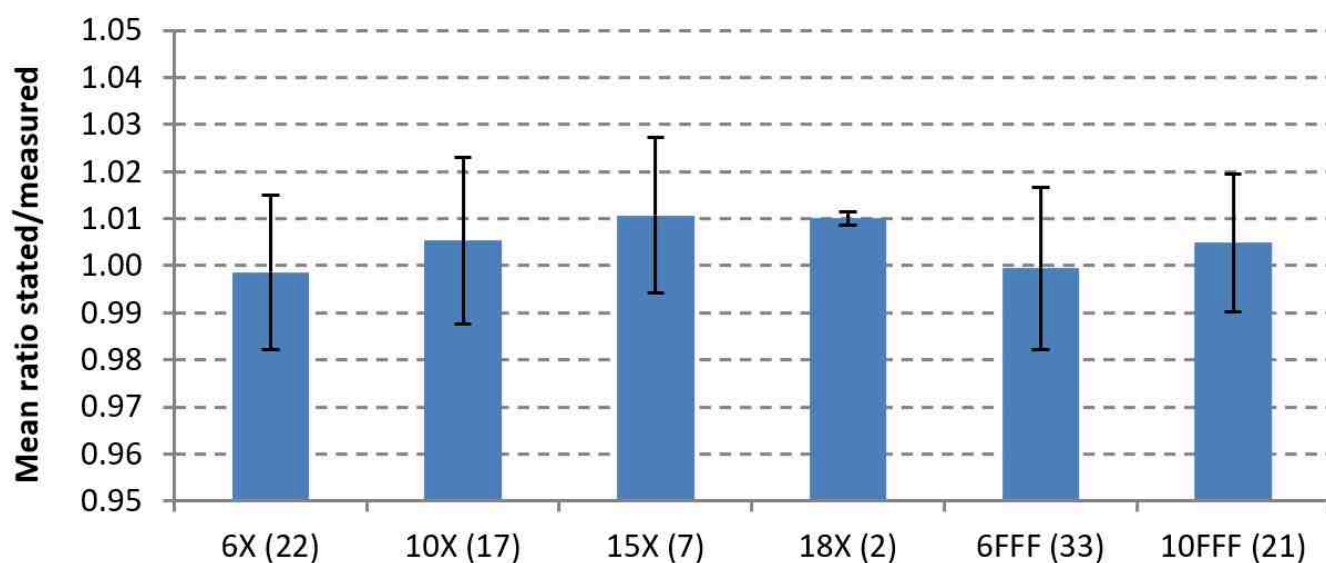


Figure 6: Photon beams: mean Ds/Dm ratio for the different radiation qualities.
The number of beams is given in brackets. Error bars=std dev.

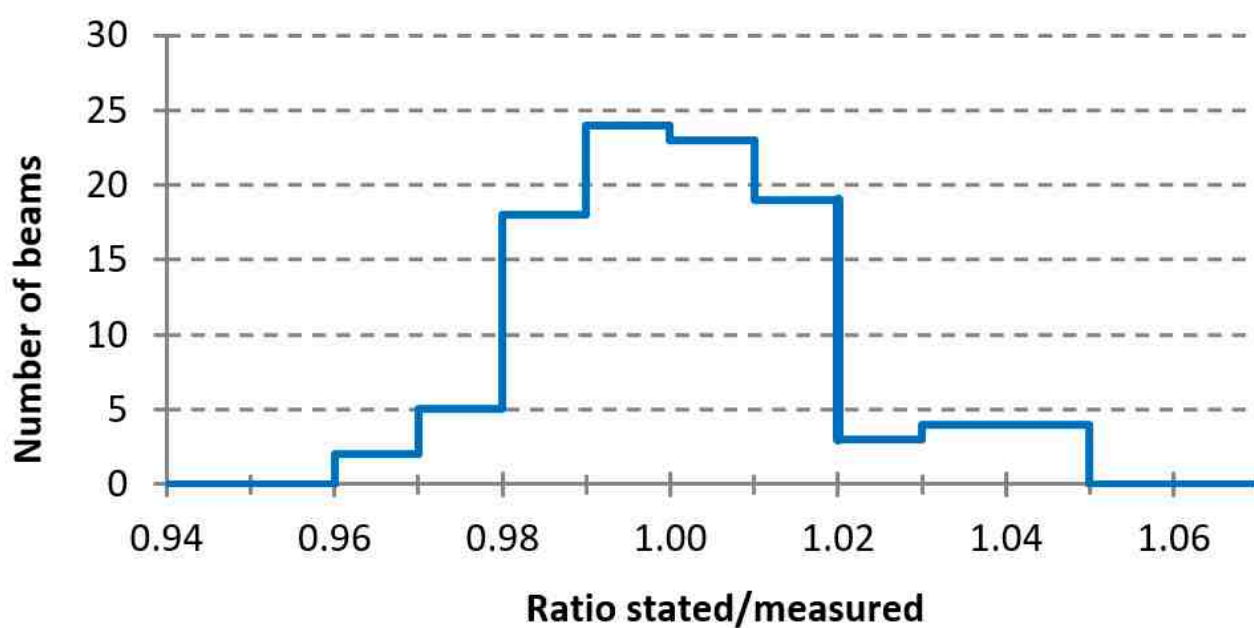


Figure 7: Electron beams: histogram of Ds/Dm ratio for all 102 beams

Parameter	FF beams	FFF beams	Both types
Beam number	48	54	102
Mean	1.003	1.002	1.002
Std dev.	1.7%	1.7%	1.6%
Minimum	0.965	0.964	0.964
Maximum	1.041	1.045	1.045

Table 2: Photon beams: observed ratio "stated dose/measured dose"

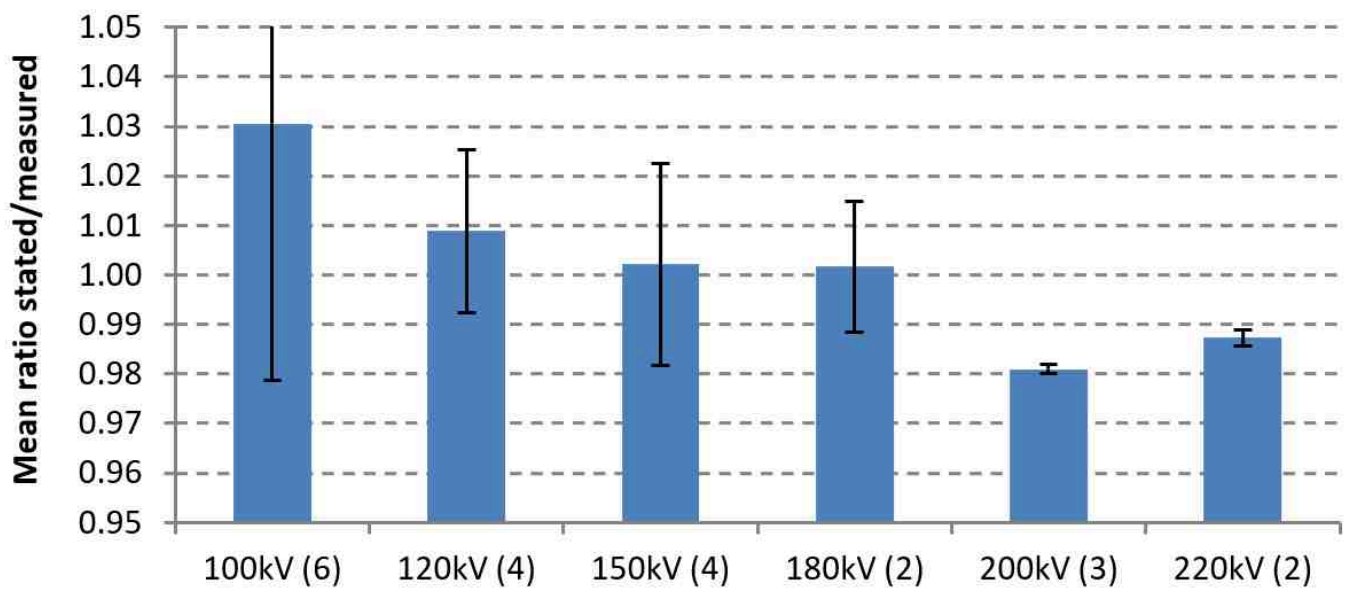


Figure 8: X Ray beams: mean D_s/D_m ratio for the different radiation qualities. The number of beams is given in brackets. Error bars=std dev.

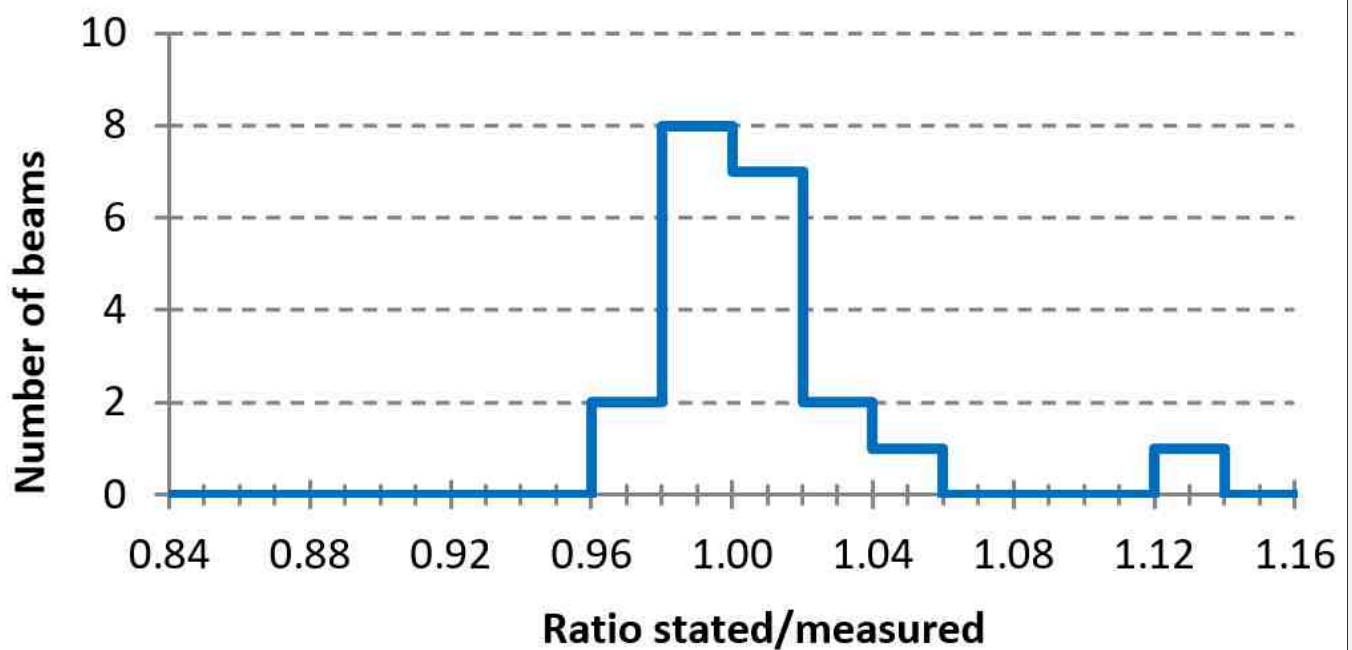


Figure 8: X ray beams: histogram of D_s/D_m ratio for all 21 beams

Parameter	X ray beams
Beam number	21
Mean	1.007
Std dev.	3.3%
Minimum	0.978
Maximum	1.130

Table 3: X ray beams: observed ratio "stated dose/measured dose"

3.3 X ray beams

Audits of medium energy X ray beams were offered for the first time this year. For this type of installation, irradiation conditions are less standardized than for high-energy beams. Participants used a variety of applicators, with FSDs ranging from 25 to 50 cm and fields ranging from 6x8 cm² to 10x10 cm² (apart from one superficial treatment machine with 15 cm FSD and 6 cm diameter and another one with 25 cm FSD and 10 cm diameter, which do not strictly fall into the medium-energy X-ray category).

We checked 21 medium energy X ray beams. The mean ratio for the different beam energies is given in Figure 6 with the standard deviation. This repartition seems to show that all deviations from the unity can be attributed to statistical fluctuations and uncertainties.

The distribution of the Ds/Dm ratio for all the X ray beams is illustrated in Figure 9. The statistics of the Ds/Dm ratio for all the X ray beams are given in Table 3.

The mean value of Ds/Dm for all photon beams is 1.007. No significant bias is observed between the participants' dosimetry and the TLD dosimetry.

For 95% of the tested beams, the Ds/Dm value is in the interval 0.94-1.06, i.e. within 6%, which is judged satisfactory. In addition, 90% of the results are in the interval 0.97-1.03, i.e. within 3%.

The center with the beam for which the deviation was above 4% received a recommendation to check the reference dosimetry, the calculation of the stated dose and the half-value layer.

Uncertainties

The uncertainty on the dose measured using TLD includes the contributions due to positioning of the phantom in the beam, reading procedure of TLD with

all influence quantities and reference in absorbed dose traceable to METAS for the cobalt irradiator at IRA. The uncertainty budget is given in Table 4. The contribution coming from the procedure with reference TLD and measurement TLD was determined using a statistical method. The fluctuations of the ratio of three measurement TLD over ten reference TLD were analyzed for five irradiations of 300 TLD.

The combined standard uncertainty is obtained by quadratic summation.

For photons, it amounts to 1.23% for each measurement with 1 slab containing three TLD, and 1.16% for the mean of 2 such measurements.

For the expanded uncertainty we adopted only one figure of 2.5% (k=2) for simplicity.

Similarly, the expanded uncertainty for electrons is 4% and for medium energy X rays 4.7% (k=2).

Dosimetry protocol

All participants carried out the reference dosimetry using the SSRMP recommendations No. 8, 9 and 10, or the IAEA TRS-398 protocol, apart from the CyberKnife (TRS-483), the Radixact and a linac dedicated to total body irradiation.

Reference dosimetry for FFF beams

The participants were asked if they corrected the dosimeter value for the effect of volume averaging during the reference dosimetry at the beam commissioning. According to IAEA TRS-483 protocol, the corrections to apply for FFF beams include in fact two contributions: the correction factor for the difference in water to air stopping-power ratio and the volume averaging correction factor. Five participants applied such corrections for a conventional linac and for a PTW 30013 chamber. The reported total correction factors amount to 1.001 for 6XFFF and to 1.000 for 10XFFF beams (mean values). One can see that these two corrections (almost) cancel out. For CyberKnife unit, no participant reported correction factors.

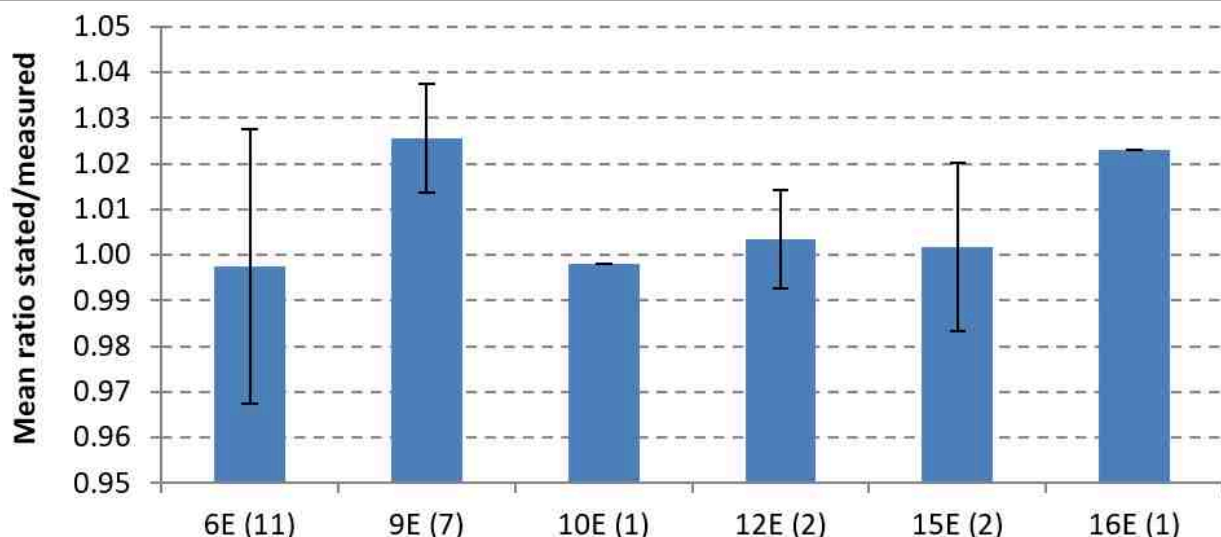


Table 4: Uncertainty budget for the absorbed dose measurement with TLD. The contributions are given at the level of one standard uncertainty

Medium energy X ray qualities

The TLD dosimeters have a pronounced dependence to X ray energy, much more than an ionization chamber. This requires that the half-value layer is known precisely when evaluating the TLD dose. The HVLs reported by the participants show large variations for a given generating potential (Figure 10). We assume that this is due to the tube filtrations, but participants were not asked for details about the installed filtrations. It appears that it can vary significantly from one machine to another.

4. Discussion and conclusion

During the 2026 TLD dosimetry intercomparison, the dosimetry of 147 photon, electron and medium energy X ray beams has been checked.

For high energy photons, 96% of the tested beams were within $\pm 4\%$ of the TLD dose and 44% were within $\pm 2\%$. Only four beams out of 102 did not meet the satisfactory criterion of $\pm 4\%$. In these cases, it was recommended that the dosimetry be verified with the reference dosimeter.

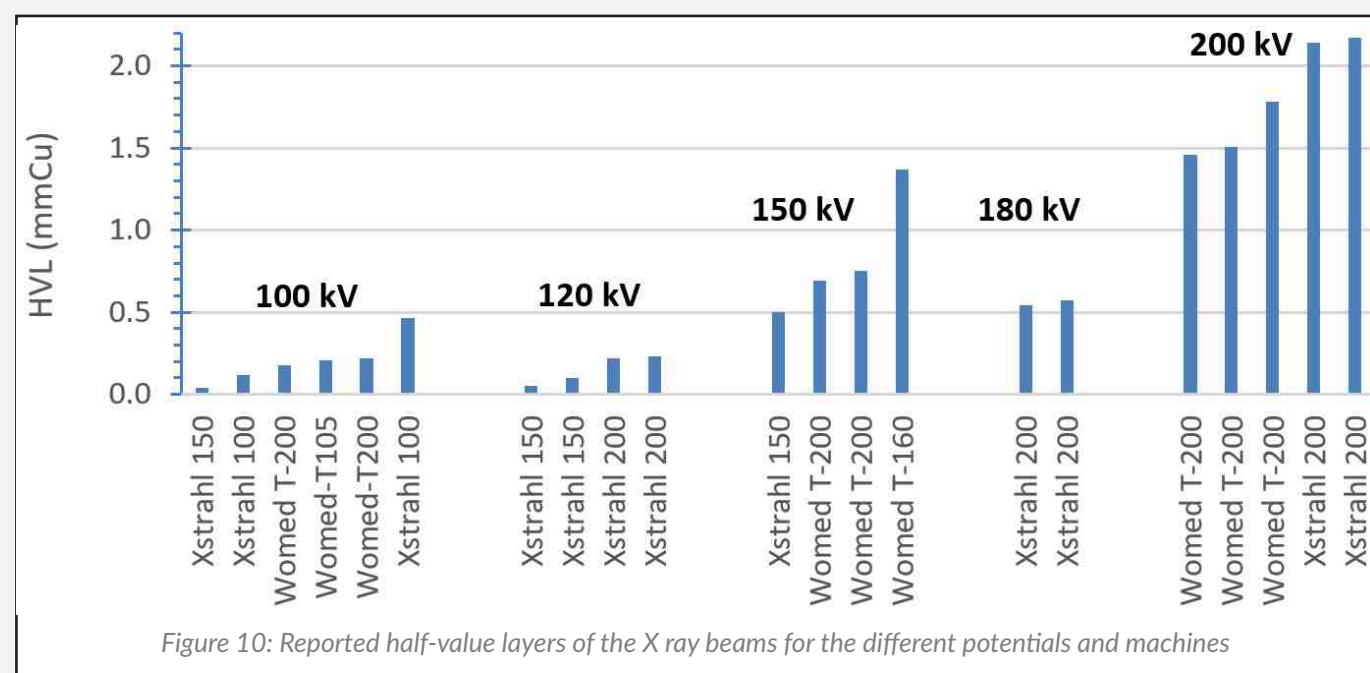


Figure 10: Reported half-value layers of the X ray beams for the different potentials and machines

For electrons, all of the 21 tested beams were within the criterion of $\pm 6\%$, and 75% were within $\pm 3\%$.

For medium energy X rays, 96% of the tested beams were within $\pm 4\%$ of the TLD dose and 90% were within $\pm 3\%$. Only one beam out of 21 did not meet the satisfactory criterion of $\pm 6\%$. In this case, it was recommended that the dosimetry and the half-value layer be verified with the reference dosimeter. The audits for medium energy X ray beams generated a great deal of interest, as 9 out of 10 centers performing this type of treatment participated in the intercomparison. The measurement method itself proved satisfactory.

We thank all the medical physicists for their participation and for their excellent collaboration.

10.08.2026

Thierry Buchillier and Claude Bailat
CHUV - Institut de radiophysique (IRA)
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PROFESSIONAL AFFAIRS

SSRMP Salary Survey 2026

Dear Members

Already three years have passed since the last salary survey – so now is the time for the next one!

As before, the target group is medical physicists working in Switzerland. The survey will take you about 15 minutes to complete, all data is collected completely anonymously and will of course be treated confidentially.

For accurate data a participation rate of at least 50% is important, so please help us by providing your salary information from 2025 here: <https://forms.cloud.microsoft/e/20GECeekWt>

You can also use the QR Code below:



The survey is open now and will be closed on October 31st 2026.

The results will be published on the SSRMP Intranet and in the Bulletin.
You can find the results of the last survey from 2023 in the January 2024 Bulletin:
https://ssrpm.ch/wp-content/uploads/2024/01/Bulletin_107.pdf

Thank you very much for your contribution to our society!

On behalf of the professional committee
Yvonne Käser

Winter School in Medical Physics Pitch, Austria, 8th - 13th / 15th - 20th of March 2026



Drone's eye view of the "Pichlmaygut" venue

For its 37th edition, the traditional, tri-national "Winterschule Pichl für Medizinische Physik" once again welcomed attendees from Austria, Germany, and Switzerland to the scenic Ennstal valley near Schladming.

Complementing the beautiful alpine backdrop, the scientific program delivered outstanding quality across three meticulously organized courses.

Driven by the commitment of the course directors and the expertise of distinguished speakers, the gathering once more provided an ideal mix of continuing education and collegial exchange in a truly inspiring mountain setting.

Course 1: Radiobiology – «Unsere Zellen sind ja nicht doof» («Our cells aren't daft, after all»)

Kurs 1 of the Winterschule Pichl in the picturesque Dachsteinregion this year was dedicated to radiobiology. The program manager Prof. Daniela Thorwarth compiled a program packed with useful theoretical knowledge and clinical relevance. The free afternoons were perfect for hiking, skiing or exploring the area. As always, it was a great opportunity to connect with other physicists and company representatives from Germany, Austria and Switzerland in the beautiful scenery of the Austrian Alps.

The introductory lectures served as a refresher on the radiobiological concepts, from the clonogenic formation assay to the linear-quadratic model to the 6 Rs. Early discussions among the attendees revolved around the role of the dose rate in clinical treatments, with data showing that a higher dose rate has a stronger biological effect, since there is a higher chance of accumulating DNA damage before sub-lethal damage can be repaired. Should we therefore pay more attention to treatment delivery times when assessing plan quality?

Prof. Franziska Eckert from Universitätsklinik für Radioonkologie / Medizinische Universität Wien added the physician's perspective, sharing her expertise of repopulation and immunomodulatory effects of radiotherapy. She explained why a single fraction dose of 8 Gy may be the sweet spot for an abscopal effect (enough dose to get DNA fragments into the cytoplasm to be picked up by T-cells, but not too much to completely obliterate them) and what a lymphocyte-sparing RT could look like in order not to suppress an immunological response.

After the overview presentations, the following days were dedicated to some specific applications, such as Lattice RT, FLASH RT (Till Böhlen/CHUV), adaptive proton therapy and handling of re-irradiations (Serena Psoroulas/UZH). In a survey among the attendees on the first day, re-irradiation turned out to be the most anticipated topic, and Serena Psoroulas fulfilled the high expectations with concise communication of the existing guidelines and interactive clinical examples to keep everyone engaged.



Captivated crowd during Till Böhlen's FLASH-talk

The final lectures were dedicated to imaging of biological characteristics related to radiosensitivity, topically centered around the questions: Can we realistically and efficiently determine an individual patient's α/β ratios, both in the tumor and in the surrounding healthy tissue? And why not (yet)?

The field of radiobiology is complex and the many factors at play make it hard or even nearly impossible to quantify the role of one single dose metric on irradiated tissue in a patient with confidence. The advent of broadly applied biological plan optimization based on individually determined organ and tumor (or sub-organ and sub-tumor) radiosensitivities instead of dose-volume constraints from patient populations still seems some distance away. However, one thing which definitely came across was that, as one lecturer eloquently put it, indeed, our cells are not daft.

Marius Eichler,
Claraspital Basel

The second week of the Winter School featured two simultaneous educational tracks. While one group featured the return of a course on “Audiology for Implantable Hearing Systems”, the other engaged in the topic of “CT and Intervention”. Each course was hosted in its own distinct room, ensuring that both programs could progress concurrently without interruption.

Course 2: Audiology

From March 15 to 20, after a three-year hiatus, the German (DGMP), Austrian (ÖGMP), and Swiss (SGSMP) Societies for Medical Physics once again invited participants to an audiology course as part of their annual Winter School. Even during the journey there, whether by car or public transport, a special atmosphere was palpable: the surrounding Alps, with their impressive natural backdrop, appear both majestic and calming, conveying a sense of vastness and inner peace. These were perfect conditions for diving deeply into professional topics in audiology while simultaneously making new contacts.

After the first joint dinner on Sunday evening, the board of trustees initially welcomed the audiology and CT courses taking place that week. Subsequently, course director Matthias Hey welcomed the participants of the audiology course. This opportunity was also taken to emphasize that the Winter School serves to foster collaborative exchange between speakers and participants. Therefore, formal titles could gladly be dropped, making the familial character of the Winter School evident from the very

beginning. The rest of the evening offered an opportunity for an initial, relaxed get-together. The substantive core of the seminar was formed by a broad program of expert lectures followed by brief discussions.

To begin, Tobias Moser gave an introduction to the physiology and pathophysiology of hearing and reported on advances in gene therapy, as well as the current progress of his group toward an optogenetic cochlear implant (CI). Torsten Rahne provided information on the indication criteria for implantable hearing systems and offered insights into objective preoperative differential diagnostics. Fittingly, Ulrich Hoppe spoke in his lecture about subjective preoperative differential diagnostics and outcome prediction in the context of CI provision. The topic of Fourier transformation and signal convolution in digital signal processing—which was repeatedly and humorously brought up in later talks—was very clearly presented by Birger Kollmeier. In addition, he gave an outlook on the further development of hearing aids and their characteristics. Norbert Dillier from Zurich compared acoustic and electrical auditory nerve stimulation and presented ECAPs in CIs. Here, the junior colleagues were able to learn from the expert who introduced this electrophysiologic procedure from research into clinical practice. Building on this, Oliver Dziemba provided information on the pre-, intra- and postoperative application of EBERA. In her lecture, Anett Franke-Trieger presented the potential applications of stapedius reflex measurement in CI care, which, together with Matthias Hey's lecture on outcome measure

during CI care from an audiologist's perspective, offered a highly effective approach to audiometry-based CI fitting. Susen Lailach provided insights into medical aftercare, as well as the target parameters and clinical relevance of patient-reported health outcomes in audiology. To foster an exchange of ideas with other disciplines within medical physics, participants also received an overview of the parallel course on “CT & Intervention” from Marc Kachelrieß (DKFZ Heidelberg).

Outside the official program, there were numerous opportunities to engage in other activities and explore the surroundings. Many used the

extended lunch breaks for group walks and hikes, or a ski trip in the local ski area, as the sun fortunately came out by the end of the final morning sessions at the latest. But even within the hotel itself, the free time during the lunch break was used to discuss the multiple-choice questions.

On Tuesday evening, under the guise of a knowledge assessment called “BBB”, an internal audiology course quiz night was hosted by Matthias Hey. Participants, in randomly formed teams of two, were tested on the topics of “Bytes, Beats, and Bie(r)ceps” while enjoying a refreshment of their choice. On Wednesday evening, the DGMP hosted a social evening at the hotel bar. Participants from both specialized courses attended this event. The relaxed atmosphere offered everyone the chance to exchange professional ideas beyond their own field of expertise, make new contacts, and enjoy the evening over a beer or a glass of wine.

At the end of this article, the two authors, Felix Hubl and Benjamin Beyer, would like to take the opportunity to express their gratitude for the travel grant provided by Dr. J. Müller-Deile, which offers younger participants an additional incentive to attend this high-quality scientific training.

Benjamin Beyer
Felix Hubl



Culinary journey of discovery during lunch break

Course 3: CT & Intervention

The CT & Intervention course at the 37th Winter School Pichl once again demonstrated how rapidly computed tomography continues to evolve. Under the direction of Prof. Marc Kachelrieß (DKFZ Heidelberg), participants were offered a comprehensive programme covering the latest technological advances, practical clinical applications and the growing influence of artificial intelligence. Throughout the week, leading experts combined fundamental principles with current research, providing an excellent overview of one of the most dynamic fields in medical physics.

The course began with the fundamentals of CT and cone-beam CT, laying the foundation for a series of lectures that explored modern imaging technologies. Artificial intelligence featured prominently from the very beginning, with Wolfgang Birkfellner introducing the principles of machine learning before returning later in the week to explain the statistical methods required for AI applications. These sessions highlighted both the enormous potential of AI and the importance of understanding its underlying methodology.

The programme continued with exciting presentations on deep learning in CT imaging, spectral CT and the transition towards photon-counting CT, technologies that are expected to shape the future of diagnostic imaging. Participants also gained valuable insights into dose management systems, diagnostic reference levels and quality assurance, illustrating how

technological innovation must always go hand in hand with patient safety and image quality.

Interventional imaging formed another important pillar of the course. Lectures on fluoroscopy, real-time image processing and optimisation of fluoroscopy and cone-beam CT demonstrated how modern imaging techniques support increasingly complex interventions. Radiation protection remained a recurring theme throughout the week, with dedicated sessions addressing dose optimisation, radiation protection in interventional procedures and prenatal radiation exposure.

The final day brought together practical case studies on CT quality optimisation, current developments in radiation protection and a critical discussion of the challenges involved in evaluating artificial intelligence for routine clinical use. A fascinating introduction to quantum computing rounded off the programme, offering participants a glimpse into technologies that may influence the future of medical imaging. Overall, the CT & Intervention course successfully combined scientific excellence with practical relevance. The broad spectrum of topics, the outstanding lecturers and the lively discussions throughout the week once again made the Winter School an excellent platform for continuing education, professional exchange and inspiration for the future of medical imaging.

Andreas Stemberger
Curator of the Board of Trustees
on behalf of the ÖGMP

Beyond the excellent standard of its scientific program, the Winter School truly excels in cultivating meaningful professional relationships. Lively debates within the lecture halls, relaxed networking during breaks, and evening meals shared among peers, faculty, and industry representatives all feed into the unique spirit of the event, which is consistently praised and appreciated by the participants.

Winter School in Medical Physics will be back in 2027!

Announcement

The Winterschule Pichl 2027 will take place in the two weeks from 7.-12.3. and 14.-16.3.2027. There will be a course on risk on nuclear medicine, a course on risk management and a radiation therapy course with a focus on MRI.

Registration for the courses will open in September 2026 - stay tuned at www.winterschule-pichl.de.

On behalf of the "Kuratorium"
Reto K  ng
Inselspital Bern



Try not to squint - sunny days make for a difficult group picture during course 1

Issues Of Interest

Swiss Congress of Radiology SCR'26

Lausanne, 28th - 30th of May 2026

A clear, bright, sunny and above all warm weather framed this edition of the Swiss Congress of Radiology held in Lausanne, at the SwissTech Convention Center close to the beautiful Lac Léman. The weather was actually a bit more than warm, marking the beginning of what was to become a summer-long heat wave - what better excuse than AC to dive deep into this year's sessions?

SCR is primarily a medical and diagnostical congress, with limited focus on medical physics; nevertheless, and thanks to the official collaboration between SGR-SSR and SSRMP, the program was far from being boring. Not only there was a refresher session explicitly dedicated to radiation protection, many other sessions touched core topics ranging from the imaging of pregnant patients, dose and protocol optimization, to phantom fabrication and of course AI.

SSRMP members could be seen everywhere: on the stage, in front of posters or at the moderation desk. A few of us have been spotted by the official congress photographic service [1], some fully aware of the camera pointed at them, some others evidently caught a bit off-guard...

After the gala dinner at the Olympic Museum right in front of the lake, it was slowly time to wrap up the congress, and maybe begin thinking to next edition.

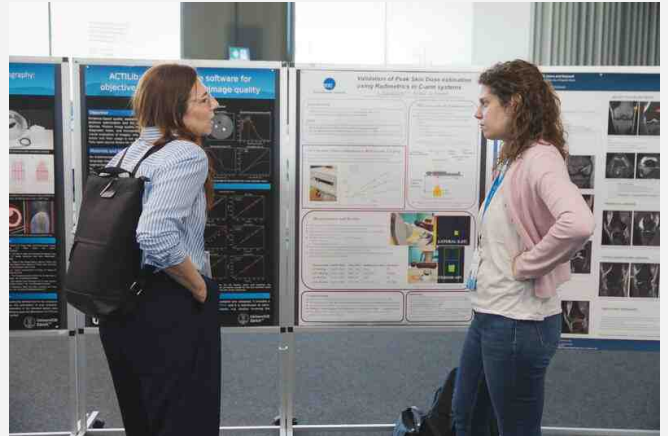
Sayonara Lausanne '26 und konichiwa Basel '27!

Davide Cester
Unispital Zurich

[1] <https://jasonkimmings.passgallery.com/-scr26/gallery>



Issues Of Interest



AMP meeting

Bern, 12th of June 2026

There were exceptionally very few people when me and my colleague entered the room, despite we arrived just on time for the meeting to start. Did maybe the focus on radiation protection topics scare people out?

Pity for them ... and many more bananas and pastries for us!



Measurements of Banana Equivalent Dose (BED) performed to simulate contamination by ingestion

Pity also because the presentations were actually very interesting and even though we were a small group, we didn't shy out from animating the meeting by asking questions and raising critical points to discuss.

Marta Sans Merce (SSRMP President) reported on the latest important activities of our society, mentioning the annual exchange FOPH-SSRMP.

This exchange with the health authority is a valuable moment for our society to give them feedbacks on the directives they implement or would like to implement. Another important moment for exchange was the SCR'26 that just took place at the end of May. Finally, she reminded us that at this year's SSRMP Assembly there will be the Board's elections. where, not only the board members but also the president and two chairs of the permanent committees will need to be elected. You can find a presentation of the candidates in this Issue of the Bulletin.

Next came Siria Medici reporting about the work mandated to IRA by FOPH/BAG to update DRLs for PET/CT in Switzerland. Her presentation explained very neatly how exactly these DRLs are established. DRLs are tools for dose optimization and are based on the analysis of Dose Indicators (DLP, CTDI etc). They are not average values, but quartiles, specifically, they correspond to the 75th quartile of the distribution of the medians of a specific dose indicator (i.e. administered activity) for all centers participating in the survey. To establish a DRL, there must be at least 20 patients undergoing the specific examination for 30% of the participating centers. If this minimum cannot be achieved, then no DRL can be established for that particular examination.

Swiss DRLs for administered activity in SPECT and PET were first established in 2010 and updated in 2016, but only for the CT (in nuclear medicine, the CT is typically a low dose CT used for attenuation correction and localization). Since

then, there have been many technological advances and new radiotracers, so it was clear that DRLs needed a further update.

When the IRA group was mandated with this task, they decided to follow the directives of ICRP Nr. 135 for the definition of DRLs. Consequently, they sent out a survey to collect data on activity (absolute activity and weight-based activity), DLP and CTDI to all Swiss centers having a PET/CT device. The data were collected between April and September 2025 obtaining a 100% response rate, including 35 centers with 45 PET devices (44 PET/CT and one PET/MRI). As a result the existing DRLs could be updated, but also new DRLs could be introduced for other examinations and radionuclides applications, reaching a total of nine. Except for cases where the activity is always administered either as fixed activity (MBq) – for instance neurological examinations – or always as weight-based activity (MBq/kg) – for instance for F-18 FDG – the values are expressed both in MBq and MBq/kg. Unfortunately, only 4 centers could provide data on pediatric patients for F-18 FDG, so no DRLs could be established for this patient's category. Nonetheless, Siria showed how the administered activity data provided for pediatrics were way below the international standards ($\sim 2\text{MBq/kg}$). Few interesting observations came out with this study which should promote motivation for improvements in the clinical practice in nuclear medicine. For instance, new digital PET generations are generally more sensitive, i.e. theoretically they require less injected activity for the same time scan, and nonetheless no

significant difference was observed in the administered activity between analogical and digital PET, except for F-18 FDG. Definitely, some room for improvement here, as our centers get equipped more and more with these digital systems. Also, it was noted that for the same administered activity, different scan lengths were run (image quality was not tackled by this survey). A possible direction for the future could be to look into MBq/kg/scan time, a quantity already



After coffee break

tackled by some colleagues in nuclear medicine as Activity Duration Product.

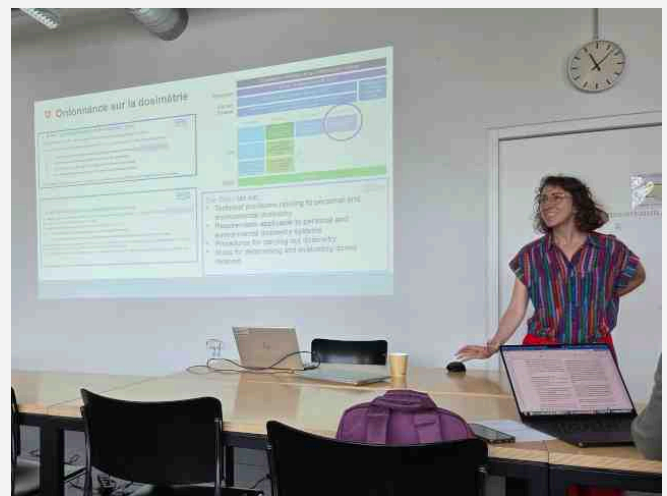
After the abundant coffee break (really too bad that so many of you weren't there), Claudia Bertolla gave us an overview of the new concepts and main changes introduced in the Dosimetry Ordinance Revision (ODos) that came into force as of March 2026.

The main objective of this revision was to reflect the current state of art in dosimetry for monitoring and improve the quality of the measurements.

The ODOs are set out as technical provisions relating to personal and environmental dosimetry, requirements on how, where and when to carry dosimeters and how to evaluate the dose. Some of the new concepts include the introduction of dose limits for exposed workers under 18 years, referred to in the ordinance as “young people”. These will be 6mSv/y for effective dose and 15 and 150 mSv/y for lens and skin/extremities, respectively. There will be more detailed regulations and a clear obligation to wear a 2nd dosimeter above the apron for the most exposed categories, like in interventional radiology; in this framework, BAG also tried to incorporate the concepts from the SSRMP Rec. Nr. 17 on eye lens dose, even though the 6mSv/y couldn't be officially adopted as limit as it would imply introducing monitoring below the level permitted to the public (15mSv/y, ICRP 103) and this would lead to a fundamental inconsistency.

A lot of emphasis is given to risk assessments of the workplace to understand which kind of shielding, preventive protective measures and dose monitoring shall be put in place. Regarding this, if I understood correctly, BAG is intending to provide guidelines of suitable dosimetry configurations for different healthcare branches. A last big change that is coming into force with the ODOs review regards intake monitoring: starting from 01.01.2027 the current provisions relating to triage measurements will fall and new directives will come into force for intake monitoring. The actual and soon old Annex 15 will be deleted and instead Annex 9 will detail the requirements related to triage measurements.

Claudia's presentation arose many questions, for instance related to the workspace risk assessment being a requirement in order to get a license - no, it is not, especially because one needs to have the license in order to perform the required measurements for a proper risk assessment (yeah ... the popular “Does first come the egg or the chicken?” never goes out of style);



Claudia Bertolla

or as to why doesn't BAG require the eye lens dosimeters to finally be obligatory, avoiding regular fights with the doctors who apparently don't like to wear these dosimeters, nor the protective glasses.

To conclude the intense morning, we heard about the newest updates from a few of the active SSRMP WGs:

1. AI

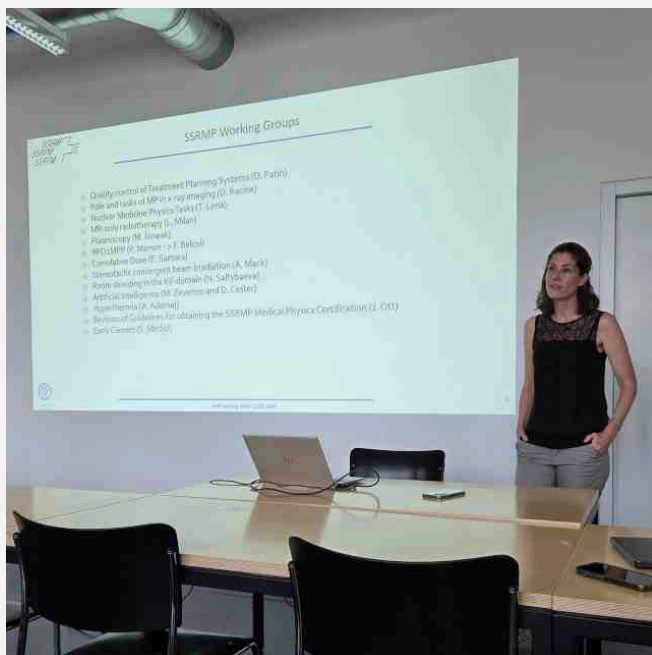
The AI webinars are on-going and planned till the end of the year. Analysis of the data collected with the survey on the use of AI is ongoing and

the WG members aim at writing a paper to submit to ZMP. The repository with educative material on AI and some very accurately selected literature will be launched at the end of 2026, but everyone is still invited to contribute to it by sharing new material with ai-wg@ssrmp.ch. Finally, it was announced that both chairs of the WG will step down at the AMP in December. The floor is open for new brains!

2. RPO2MPP

Yesss ... the group still lives ...

A tentative recommendation for imaging dose reporting from IGRT in RT was finalized and submitted to the Scientific Committee. Francesca (myself) gave a brief overview of how such recommendation will look like. The aim of the WG is to have a version to distribute to the members and to be discussed at the AMP in December.



Maud Jaccard presenting the WG

3. Hyperthermia (HT)

A self-declaration form for a survey has been prepared with the aim of reviewing the current roles and activities of medical physicists working with HT systems. Standard procedures for planning, treatment and delivery were compared with ESHO guidelines and the WG aims at preparing a recommendation for QA.

If you manage to read till this point without wishing to be brain-dead, you might have realized that the day's content was indeed very informative and you have indeed missed something not coming (the bananas at the coffee break if nothing else).

A big thank you to Maud for organizing this AMP and till December, a nice summer to everybody!

Francesca Belosi
Kantonsspital Winterthur
Fotos kindly provided by
Nikolaos Koutsouvelis
Hôpitaux Universitaires de Genève

Next AMP Meeting: 04.12.2026

The next AMP meeting will take place on
December 4th
location to be announced

Back to school!

Of course, the summer workbook has been sitting untouched all holidays, safely buried under a pile of books, comics and games, despite all those good resolutions made at the end of June. So, just to give everyone the immense satisfaction of finally ticking that box off the to-do list, here is a little Medical Physics back-to-school workout. No TPS, no Monte Carlo, no scripts... just your brain and a pen. Calculator allowed only if you admit defeat.

Ready? Pens out!

1. Warm up!

A point source produces a dose rate of 100 mGy/min at 1 m. What dose rate would you expect at 2 m?

2. Back to basics: RT

A patient is prescribed 60 Gy in 30 fractions. After fraction 17, how much dose remains to be delivered?

3. Don't forget your HU values

Match each material with the most plausible CT number:

- | | |
|------------------|----------|
| 1. Air | A. +1000 |
| 2. Water | B. -1000 |
| 3. Cortical bone | C. 0 |
| 4. Lung | D. -700 |

4. Nuclear Medicine corner

A radionuclide has a physical half-life of 6 hours. At 8:00, its activity is 800 MBq. You forgot about it until 20:00. What is its activity now?

5. A little radiobiology: RT

Two fractionation schemes are considered:

- A: 30×2 Gy B: 5×7 Gy

Using the linear-quadratic model and $\alpha/\beta = 10$ Gy, which one has the higher BED?

6. A tour in Radiology

You double the tube voltage from 60 kVp to 120 kVp. Assuming the classic approximation that X-ray output varies approximately with kVp^2 , by what factor does the output increase?

7. Geometry class: RT

A 10×10 cm² field is defined at an SAD of 100 cm. Ignoring everything except beam divergence, what is the approximate field size at 150 cm from the source?

8. Bonus: back to shielding

A barrier provides 3 HVLs of attenuation. What percentage of the initial intensity remains behind the barrier?

That wasn't too challenging? After the summer break it's probably best to ease back into things...

Got an idea for a game for a future issue? Send it our way, suggestions are always welcome!

Solution of the game of the previous Bulletin

- RADIATION INTENSITY DECREASES WITH DISTANCE BY THE INVERSE SQUARE LAW
- PHYSICISTS FIX THINGS THAT AREN'T BROKEN TO PREVENT THEM FROM BREAKING

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You are all 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 DOCX or ODT document via email to bulletin@ssrmp.ch.

Deadline for submissions to Bulletin No. 116 (January 2027): 14.12.2026

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Event Calendar

Sep 23 Valencia, E	6 th European Congress of Medical Physics ECMP Sep 23 - Sep 26 https://ecmp2026.efomp.org/
Oct 04 Erlangen, D	37 th ESHO annual meeting Oct 04 - 06 https://esho-congress.eu/
Oct 12 Luzern	SSRMP Education Course: Modern Treatment Planning Systems Oct 12 https://www.luks.ch/veranstaltungen/
Oct 13 Basel	SSRMP Education Course on Medical Physics in Nuclear Medicine Oct 13 - 15 https://ssrpm.ch/events/
Oct 29 Cluj, RO	ESMPE School Stereotactic Body Radiotherapy Oct 29 - 31 https://www.efomp.org/index.php?r=pages&id=esmpe-upcoming-editions
Nov 05 St. Gallen	58 th SSRMP annual meeting 2026 and General Assembly Nov 05 - 06 https://indico.psi.ch/event/18339/
Jan 17 Villigen	PSI Winterschool for Proton Therapy Jan 17 - 22 https://indico.psi.ch/event/18820/
Feb 04 Prague, CZ	ESMPE School on Dosimetry Feb 04 - 06 https://www.efomp.org/index.php?r=pages&id=esmpe-upcoming-editions
Mar 03 Vienna, A	European Congress of Radiology ECR 2027 Mar 03 - 07 https://www.myesr.org/congress/
Jun 03 Basel	Swiss Congress of Radiology SCR'27 Jun 03 - 05 https://congress.sgr-ssr.ch/



And please, if you participate in any conference or meeting, think of writing a few lines or sending a picture for the Bulletin.

THANK YOU!