

10 - 14 June NSFS Conference 2019

“Next level in radiation protection”

Hanaholmen Cultural Centre

Espoo / Helsinki, Finland



Programme

Programme Highlights		
Monday 10 June	07:45 - 16:00	Excursions
	07:45 -	Olkiluoto Nuclear Power Plant
	13:30 -	VTT Center for Nuclear Safety
	13:30 -	New Children's Hospital
	15:00 -	Boron Neutron Capture Therapy Center at the Helsinki University Hospital
	19:00 -	Registration and Welcome Cocktail Reception at Hanaholmen
Tuesday 11 June	08:00 -	Registration
	09:00 -	Opening of conference and Bo Lindell Award
	19:00 -	Conference Dinner at Restaurant Johannes
Wednesday 12 June	15:30 -	NSFS General Assembly
	18:00 -	Young Scientist Evening
Thursday 13 June	18:00 -	STUK's measuring equipment is introduced at the yard of Hanaholmen
Friday 14 June	14:30	End of conference

Tuesday, 11 June

Session 1: Opening and Bo Lindell Award

9:00-10:30 Chair: Ritva Bly, Co-chair: Tommi Toivonen

Time	Code	Title	Speaker/Author
9:00		Opening	Petteri Tiippa Director General of STUK
9:10	S1-O1	Bo Lindell Lecture	TBA
10:10	S1-O2	The fabulous history of radiation protection – Can we learn from the past? Acknowledging the English translations of Bo Lindell's books on radiation, radioactivity and radiation protection.	Jack Valentin
10:30		<i>Coffee and Posters</i>	

Session 2: Next level in radiation protection: Setting the scene

11:00-12:30 Chair: Mette Øhlenschläger, Co-chair: Ole Harbitz

11:00	S2-O1	The beginnings of a comprehensive review of the system of radiological protection	Christopher Clement, ICRP
11:20	S2-O2	A boost to radiation protection by the Nordic co-operation	Sigurður Magnússon
11:40	S2-O3	Overview of European radiation protection research activities	Teemu Siiskonen
12:00	S2-O4	Nuclear safety knowhow as a national strategy	Marja-Leena Järvinen
12:15	S2-O5	Current international activities in the field of radiation protection dosimetry and calibrations	Paula Toroi, IAEA
12:30		<i>Lunch</i>	

Session 3: Actions for justification

13:30-14:30 Chair: Jukka Liukkonen, Co-chair: Eija Venelampi

13:30	S3-O1	Health technology assessment - Could RP influence the choice of medical technologies and methods.	Eva G. Friberg
13:50	S3-O2	Nordic participation in European Action Week - Inspections of justification in radiology	Eva G. Friberg
14:10	S3-O3	A road-map for developing referral guidelines for diagnostic imaging in the Russian Federation	Aleksandr Vodovotov
14:25		Poster summary: Actions for justification	<i>Chair/Co-chair</i>
	S3-P1	Perception of the radiation risk among the Russian specialists in radiation protection	A. M. Biblin

Session 4: New methods and technologies

14:30-16:05 Chair: Hanne Waltenburg, Co-chair: Kerttuli Helariutta

14:30	S4-O1	An on-line system for calculating staff doses - the PODIUM project	Anja Almén
14:45	S4-O2	NaCl pellets as prospective dosimeters for hospital applications: preliminary experience from Skåne University Hospital	Lovisa Waldner
15:00		<i>Coffee and Posters</i>	
15:30	S4-O3	Spectra Recording Semiconductor Detectors for Medical Imaging	Joonas Tikkanen
15:45	S4-O4	Ionizing radiation detection with mobile phones	Panu Pousi and Jan Morelius
16:00		Poster summary: New methods and technologies	<i>Chair/Co-chair</i>
	S4-P1	Evaluating or reducing the conservativeness of dose estimations	Quang Le Nghi Trong

Short presentations by exhibitors

16:05-17:00 Chair: Gísli Jónsson

		List of exhibitors: <ul style="list-style-type: none"> • Gammadata Instrument AB, Sweden • MAP Medical Technologies Oy, Finland • Mirion Technologies (RADOS) Oy, Finland • NKS – Nordic Nuclear Safety Research, Denmark • Pagode Oy, Finland 	
19:00		Conference dinner at Restaurant Johannes	

Wednesday, 12 June

Session 5: Medical applications 1: Focus on high dose procedures and safety deviations

9:00-10:30 Chair: Alexandra Karoussou-Schreiner, Co-chair: Heli Larjava

Time	Code	Title	Speaker/Author
9:00	S5-O1	Radiation protection of patient in cardiology	Joanna Sierpowska
9:25	S5-O2	Radiation protection of staff in cardiology and interventional radiology	Timo Mäkelä
9:50	S5-O3	Patient dose variations in cardiology: KAP values and skin doses	Jukka Järvinen
10:10	S5-O4	Reporting on radiation safety deviations of medical x-ray practices in Finland	Elina Hallinen
10:30		<i>Coffee and Posters</i>	

Session 6: Medical applications 2: Collaboration, guidelines and deep-learning to improve optimization

11:00-12:30 Chair: Eva G. Friberg, Co-chair: Raija Seuri

11:00	S6-O1	Effective collaboration between authorities and CT Manufacturers on CT dose optimisation	Alexandra Karoussou-Schreiner
11:20	S6-O2	From image quality to care outcome	Mika Kortensniemi
11:40	S6-O3	Nordic guidelines for dose reduction of radiosensitive organs of patients in conventional radiography and fluoroscopy	Anders Widmark
12:00	S6-O4	Harmonization of radiation protection, imaging and dosimetry practices of I-131 therapy in Finland	Tommi Noponen
12:20		Poster summary: Medical applications	<i>Chair/Co-chair</i>
	S6-P1	40-years of Nordic cooperators	Torsten Cederlund
	S6-P2	Pediatric CT examinations in Iceland: Frequency and age distribution	Edda Lina Gunnarsdóttir
	S6-P3	Assessment of dose-area product of common radiographic examinations in selected southern Nigerian hospitals	Bamidele Lateef
	S6-P4	On Conceptus Doses in Cardiology in Finland - A Simulation Report on a CRT Implantation	Jukka Järvinen
	S6-P5	Whole body counting for staff monitoring in radionuclide therapy with Th-227	Søren Holm
	S6-P6	New Danish Guideline for Quality Control of Diagnostic Monitors	Hanne N. Waltenburg
	S6-P7	HERCA activities relating to medical applications	Alexandra Karoussou-Schreiner
12:30		<i>Lunch</i>	

Session 7: Radiation and nuclear safety research

13:30-15:00 Chair: Anja Almén, Co-chair: Marja-Leena Järvinen

13:30	S7-O1	Cores - Consortium for radiation safety research	Pia Vesterbacka
13:45	S7-O2	Recent Nordic research collaboration results obtained under the NKS-B program	Kasper G. Andersson
14:00	S7-O3	Radiation protection research: is Nordic cooperation a way forward to ensure sustainable competence and high-quality research?	Christopher Rääf
14:15		Panel Discussion: Nordic cooperation in radiation and nuclear safety research – challenges and possibilities? Panel participants: Pia Vesterbacka, Kasper Andersson, Christopher Rääf, Anja Almén, Marja-Leena Järvinen	
14:55		Poster summary: Radiation and nuclear safety research	<i>Chair/Co-chair</i>
	S7-P1	Neutron dosimetry in Nordic countries	Jussi Huikari
	S7-P2	Actinium in urine	Cato C. Szacinski Wendel
15:00		<i>Coffee and Posters</i>	
15:30		NSFS General Assembly	
18:00		Young Scientist Evening	

Thursday, 13 June

Session 8: Nuclear waste management strategies

9:00-10:30 Chair: Kasper G. Andersson, Co-chair: Antero Kuusi

Time	Code	Title	Speaker/Author
9:00	S8-O1	The Role of Safety Culture and Holistic ALARA / ALARP in the optimisation of Radioactive Waste Management in a New Nuclear Build	Peter Bryant
9:20	S8-O2	Introducing the concept of the isodose for optimization of decontamination activities based on typical Northern European houses	Yvonne Hinrichsen
9:35	S8-O3	Upper estimates for effective doses from release of ³⁶ Cl activity during plasma cutting of the DR3 reactor tank	Jens Søgaard-Hansen
9:50	S8-O4	Difficult to measure beta emitters (⁵⁵ Fe and ⁶³ Ni) in activated pressure vessel steel - theoretical versus experimental analysis	Susanna Salminen-Paatero
10:00	S8-O5	Radiation protection of the decommissioning Hot Cells	Quang Le Nghi Trong
10:15	S8-O6	Simple contamination, Comprehensive solution - A case study	Mikkel Øberg
10:30		<i>Coffee and Posters</i>	

Session 9: Modern radioecology

11:00-12:30 Chair: Christopher Rääf, Co-chair: Tuomas Pelttonen

11:00	S9-O1	A new MiniPANDA detector for measurement of environmental samples.	Timo Hildén
11:15	S9-O2	Radon concentration in water in Iceland	Gísli Jónsson
11:30	S9-O3	Assessment of the radiation environment around the European Spallation Source before its start	Christian Bernhardsson
11:45	S9-O4	Identification of biota representative to the Baltic Sea	Ville Kangasniemi
12:00	S9-O5	Feasibility of a HMO-process in drinking water treatment technology for removing natural radioactivity and avoiding generation of NORM	Siiri Suursoo
12:15		Poster summary: Modern radioecology	<i>Chair/Co-chair</i>
	S9-P1	Radioecological sample collection in Finland	Jussi Paatero
	S9-P2	Nuclear contamination sources in surface air of Finnish Lapland in 1965-2011 studied by means of ¹³⁷ Cs, ⁹⁰ Sr, total beta activity, ²³⁸ , ²³⁹ , ²⁴⁰ , ²⁴¹ Pu, and ²⁴¹ Am	Susanna Salminen-Paatero
	S9-P3	Radioactivity on peatlands: ecosystem approach on late-phase fallout situations	Ari Ikonen
	S9-P4	Airborne lead-210 and stable lead in Subarctic Finland 1964-2013	Jussi Paatero
	S9-P5	Aiming for Accreditation in Gammaspectrometry	Asser Nyander Poulsen
	S9-P6	Tritium in the Lund area prior to start of the European Spallation Source (ESS)	Kristina Eriksson Stenström
	S9-P7	Radon measurements in Þríhnúkagígur cave in Iceland	Marjan Ilkov
	S9-P8	Variation in uptake of Cs and Sr by 11 cultivars of oil crops	Stefan Bengtsson
12:30		<i>Lunch</i>	

Session 10: New methods in emergency preparedness

13:30-15:00 Chair: Pia Vesterbacka, Co-chair: Veli Riihiluoma

13:30	S10-O1	Novel Gamma Radiation Detector for Finnish Early Warning Network	Sakari Ihantola
13:50	S10-O2	Design Principles of Enhanced Dose Rate Monitoring Network	Tuomas Pelttonen
14:10	S10-O3	Who Is Emergency Worker? The Finnish Answer	Antero Kuusi
14:25	S10-O4	Voluntary Radiation Measurement Team	Jukka Sovijärvi
14:40		Poster summary: New methods in emergency preparedness	<i>Chair/Co-chair</i>
	S10-P1	Analysis on different hypothetical radioactive release scenarios on Finnish NPPs	Antti Ukkonen
15:00		<i>Coffee and Posters</i>	

Session 11: Non-ionizing radiation

15:30-17:00 Chair: Riikka Pastila, Co-chair: Pasi Orreveläinen

15:30	S11-O1	Genomic instability and non-ionizing radiation	Jonne Naarala
15:50	S11-O2	The health effects derived from UV radiation and sunbed use	Riikka Pastila
16:10	S11-O3	Use of non-ionizing radiation in beauty care	Pasi Orreveläinen
16:30	S11-O4	Sunbed use in Iceland 2004 - 2018	Edda Lina Gunnarsdóttir
18:00		Programme to be confirmed	

Friday, 14 June

Session 12: Policies, actions and research to support radiation and nuclear safety

8:30-10:00 Chair: Jens Søgaard-Hansen, Co-chair: Maaret Lehtinen

Time	Code	Title	Speaker/Author
8:30	S12-O1	Improved radiation safety in Finland with graded approach in the new regulatory framework	Tommi Toivonen
8:45	S12-O2	Radon action plan of Finland	Päivi Kurttio
9:00	S12-O3	Implementing 3S in practice – Conducting the 3S inspections	Marko Hämäläinen
9:15	S12-O4	National best practices: Implementing guide for security arrangements of radiation sources	Tuomas Siru
9:30	S12-O5	Methods and challenges of communication in radiation protection	Johanna Vahtola
9:45	S12-O6	Radon at work places - concentrations during working hours vs. long term average	Olli Holmgren
10:00		<i>Coffee and Posters</i>	

Session 12: Policies, actions and research to support radiation and nuclear safety, cont'd

10:30-12:00 Chair: Søren Holm, Co-Chair: Hannu Järvinen

10:30	S12-O7	Nordic project to establish diagnostic reference levels for pediatric patients	Hanne N. Waltenburg
10:45	S12-O8	Collecting relative frequencies and assessing radiation doses of pediatric radiology procedures involving ionizing radiation: Data collection methods and first results	Andreas Jahnen
11:00	S12-O9	Comparison of measured eye lens doses at the forehead and at collar level	Henrik Roed
11:15	S12-O10	Lowered dose limit to the lens of the eye- Results from 2018 at Forsmark NPP	Ann-Sofie Gustafsson
11:30	S12-O11	Global Cooperation in Radiation Protection - case Saudi Arabia	Pekka Ottavainen
11:45		Poster summary: Policies, actions and research to support radiation and nuclear safety	<i>Chair/Co-chair</i>
	S12-P1	Diagnostic reference levels (DRL) in Norway 2017: Results, revision and establishment of new DRL	Anders Widmark
	S12-P2	Development of national diagnostic references levels for CT in Denmark	Hanne N. Waltenburg
	S12-P3	Assesment of DRLs for PET/CT examinations in the Russian federation	Larisa Chipiga
	S12-P4	Staff eye lens dose in interventional radiology and cardiology	Antti Pekkarinen
	S12-P5	Inspection remarks on transportation of nuclear medicine sources	Jukka Liukkonen
	S12-P6	Radon communication in Finland	Katja Kojo
	S12-P7	FINNORM - Establishing the NORM inventory of Finland	Mila Pelkonen
	S12-P8	Radiation safety in aviation in Finland	Anne Kiuru
	S12-P9	General Overview On Nuclear and Radiological Regulatory Commission (NRRC) In Saudi Arabia	Ahmed Basfar
12:00		<i>Lunch</i>	

Session 13: Next level in radiation protection: Conclusions

13:00-14:00 Chair: Sigurður Magnússon, Co-chair: Teemu Siiskonen

13:00	S13-O1	Brief summary of the highlights of sessions 1-12	Tommi Toivonen
13:10		Panel Discussion: The next level in radiation protection: points to focus, methodologies, challenges? – Response to the highlights of sessions, conclusions from the conference Panel participants: Sigurður Magnússon, Teemu Siiskonen, Christopher Clement, Anja Almén, Tommi Toivonen, Ritva Bly, Hanne Waltenburg	

Session 14: Closing session

14:00-14:30

14:00		Closing remarks by NSFS president	
14:30		End of Conference	