|  |  |  |
| --- | --- | --- |
| **Sunday 17 November 2019** | |  |
| 17:30 – 19:30 | **Joint ICRP Symposium & ARPS Forum Welcome Reception**  *Please note, the Welcome Reception is included in the cost of a full registration.*  *Additional tickets may be purchased at a cost of $85 per person* | *Adelaide Convention Centre* |

|  |  |  |
| --- | --- | --- |
| **Monday 18 November 2019** | |  |
| **ARPS Forum**  **Panorama Rooms 1 & 2** | | |
| 0730 – 1700 | Registration Desk Open | |
| 0830 - 0840 | **Welcome from ARPS and Opening Remarks** | |
| 0840 - 0850 | **Dr Carl Magnus Larsson**  *ARPANSA (Australia)* | |
| 0850 - 0900 | **Reflections on ICRP 2017**  Jean-Christophe Neil  *Director General of IRSN* | |
| 0900 - 0905 | **Welcome from ICRP and Introduction of the 2019 Awardee of the Bo Lindell Medal for the Promotion of Radiological Protection**  Dr Claire Cousins  *ICRP Chair* | |
| 0905 - 0945 | **Keynote Speaker - Bo Liddell Medal for the Promotion of Radiological Protection Recipient**  **Interdisciplinary radiation protection research in support of medical uses of ionising radiation**  **Dr Elizabeth Ainsbury**  *Principal Radiation Protection Scientist and Cytogenetics Group Leader at Public Health England’s (PHE) Centre for Radiation (UK)* | |
| 0950 - 1030 | **Keynote Speaker - Boyce Worthley Oration**  **A controversy that needs to be resolved**  **Don Higson**  *(Australia)* | |
| **1030 – 1100** | **Morning Refreshments, Trade Exhibition & Poster Display** | *Hall N&O* |

|  |  |  |  |
| --- | --- | --- | --- |
| **SESSION 2** | **Session 2.1**  **Future Challenges** | **Session 2.2**  **NORM and Natural Radiation (1)** | **Session 2.3**  **Radiation Biology and Protection** |
| **Chair/s** | ***TBA*** | ***TBA*** | ***TBC*** |
|  | ***Panorama 1*** | ***Panorama 2*** | ***Panorama 3*** |
| 1100 – 1115 | **Low Dose Radiation - Science, Policy, and Public Opinion**  *Charlotta Sanders, World Nuclear Association (UK)* | **Cave radon exposure, dose, dynamics and mitigation**  *Chris Waring,* *ANSTO (Australia)* | **DMAPT is an effective radioprotector of normal tissues from short- and long-term radiation-induced damage while radiosensitising prostate tumour tissue**  *Pamela Sykes, Flinders University (Australia)* |
| 1115 – 1130 | **All solid cancer incidence and mortality dose-response in the Life Span Study of atomic bomb survivors**  *Alina Brenner, Radiation Research Effects Foundation (United State)* | **Radon distribution and appraisal of its radiation dose in the groundwater of a small tropical river basin, Kerala, India**  *Sukanya Srinivasa Raghavan, University of Kerala (India)* | **Analytic Estimation of the Anatomical Data for Malaysian Radiation Adult Phantom**  *Olaseni Bello, University Technology Malaysia (Malaysia)* |
| 1130-1145 | **Cancer risks following low-dose radiation: What do we know about the dose-response curve?**  *John Mathews, University of Melbourne (Australia)* | **A Discussion on the Potential Impact of Residential Radon Exposure on Radon Risk Assessment for Uranium Miners**  *Jing Chen, Health Canada (Canada)* | **Is particle therapy the answer for pancreatic cancer?**  *Mikaela Dell'Oro, University of South Australia (Australia)* |
| 1145-1200 | **The truth, the whole truth, and nothing but the truth**  *Richard O'Brien (Australia)* | **Radon Progeny and Uranium Ore Dust Personal Alpha Dosimetry in Uranium Mines – The Canadian Experience**  *Brian Bjorndal, Radiation Safety Institute of Canada (Canada)* | **Radiosensitivity changes in HPV+ and HPV- head and neck cancers following fractionated irradiation**  *Paul Reid, University Of South Australia (Australia)* |
| 1200 - 1215 | **Achieving harmonisation of radiation protection legislation across Australian jurisdictions**  *Ian Furness, University of South Australia (Australia)* | **Design and Development of a Radon Calibration Chamber for Canada**  *Brian Bjorndal, Radiation Safety Institute of Canada (Canada)* | **Are clinical nuclear medicine settings compliant with proposed new ICRP lens of eye dose limits?**  *Sandor Demeter, Shared Health – Manitoba (Canada)* |
| **1220 – 1320** | **Lunch, Trade Exhibition & Poster Display** | | |
| **SESSION 3** | **Session 3.1**  **Aviation and Beyond** | **Session 3.2**  **NORM and Natural Radiation (2)** | **Session 3.3**  **Nuclear Facilities and Training** |
| ***Chair/s*** | ***TBC*** | ***TBC*** | ***TBC*** |
|  | ***Panorama 1*** | ***Panorama 2*** | ***Panorama 3*** |
| 1320- 1335 | **How can we manage the cosmic radiation exposures of frequent flyers?**  *Hiroshi Yasuda, Hiroshima University (Japan)* | **Radiation monitoring of uranium mining sites in the Alligator Rivers Region, Northern Territory, Australia**  *Scott McMaster, Department of the Environment and Energy (Australia)* | **Development of New Techniques for Emergency Response to a Radiological/Nuclear Event for Public Health**  *Farrah Norton, Canadian Nuclear Laboratories (Canada)* |
| 1335 - 1350 | **Space Radiation effects, space health and human radiosensitivity**  Melanie Ferlazzo, CNES INSERM ANSTO (Australia) | **A new diffusion battery for the assessment of aerosol characteristics**  *Robert Fairchild, Nebraska Wesleyan University (USA)* | **The safety control system at a nuclear fusion experimental facility**  *Sandro Sandri, Enea (Italy)* |
| 1350 – 1405 | **Experimental Microdosimetry for radiation risk assessment of particle therapy patients and astronauts using a novel passive Microdosimeter**  *Bhaskar Mukherjee, University of Sydney (Australia)* | **Validation of an effective dosimeter for radon decay products**  *Andrew Yule, ARPANSA (Australia)* | **TBA** |
| 1405– 1420 | **Development of a new radiation safety standard in Victoria - CT based units for security or quality control purposes.**  *Simon Robertshaw, Dhhs (Australia)* | **Review of uranium oxide transport in South Australia**  *David Kruss, Environment Protection Authority South Australia (Australia)* | **Simple Contamination, Comprehensive Solution - a Case Study**  *Mikkel Øberg, Danish Decommissioning (Denmark)* |
| 1420 – 1435 | **A solid-state microdosimeter for radiation protection for astronauts in space**  *Linh Tran, University of Wollongong (Australia)* | **Implementing environmental radiation protection at a radiopharmaceutical facility: a case study in Australia that includes terrestrial and marine pathways**  *Mathew Johansen, ANSTO (Australia)* | **Rethinking the challenge of radioactive contamination at the OPAL multipurpose reactor**  *John Bus, ANSTO (Australia)* |
| **1440-1510** | **Afternoon Refreshments, Trade Exhibition & Poster Display** | | |
| **SESSION 4** | **Session 4.1**  **Radiation Effects** | **Session 4.2**  **NORM and Natural Radiation (3)** | **ICRP Member Plenary** |
| ***Chair/s*** | ***TBC*** | ***TBC*** |  |
|  | ***Panorama 1*** | ***Panorama 2*** | ***Panorama 3*** |
| 1510-1525 | **Scientific insights into the current ICRP judgments for radiation effects on the lens of the eye**  *Nobuyuki Hamada, CRIEPI (Japan)* | **NORM: A planned or existing exposure situation?**  *Fiona Charalambous, Australian Radiation Protection And Nuclear Safety Agency (Australia)* | *ICRP Members Only* |
| 1525-1540 | **The REPAIR Project: a deep underground experiment investigating the biological significance of terrestrial and galactic cosmic natural background radiation**  *Jake Pirkkanen, Laurentian University (Canada)* | **Developing International Radiological Risk Assessment Tools and Approaches for Australian Arid Environments**  *Rachel Popelka-Filcoff, Flinders University (Australia)* |
| 1555- 1610 | **Radiation effects on the lens of the eye: assessing the risk level for cataractogenesis**  *Christopher Thome, Northern Ontario School of Medicine (Canada)* | **The IAEA forum for regulators of uranium and NORM activities**  *Keith Baldry, Environment Protection Authority (Australia)* |
| 1610- 1625 | **Exploring the effects of ionizing radiation beyond Earth’s orbit and deep underground in a novel yeast model system**  *Douglas Boreham, Northern Ontario School Of Medicine (Canada)* | **Use of Case Studies in Progressing Guidance on the Application of Recommendations on Radiological Protection in the Existing Exposure Situations**  *Malgorzata Sneve, Norwegian Radiation Protection and Nuclear Safety Authority (Norway)* |
| 1640 – 1655 | **A Multi-target dietary intervention protects from radiation-induced cognitive impairment and normal tissue injury.**  *Douglas Boreham, Northern Ontario School Of Medicine (Canada)* | **Finding a solution for managing our low-level radioactive waste and bringing stakeholders along on the journey.**  *Annelize Van Rooyen, Tellus Holdings (Australia)* |

|  |  |  |  |
| --- | --- | --- | --- |
| **Tuesday 19 November 2019** | | | |
| **ICRP 2019 - MINES** | | **ARPS FORUM - MEDICAL** | |
| **MINING AND OTHER NATURAL SOURCES** | |  | |
| *Co-chairs: Jacques Lochard & John Takala* | |  | |
| 0800 – 1700 | Registration Desk Open | | |
| 0845 - 0850 | **Welcome and Opening Remarks** | | |
| 0850 - 0930 | **MINES Keynote Speaker**  **TBA**  *BHP (Australia)* | | |
|  | **Session 5.1**  **Radiological Protection of Workers, Public and Environment** | **Session 5.2**  **Radiation Protection in Medicine (1)** | |
| 0930 - 1000 | **Uranium mining**  Neil Camillo  *BHP (Australia)* | 0930-0945 | **TBA** |
| 0945 - 1000 | **Learning form the Australian Radiation Incident Register**  *Chris Nickel, Arpansa (Australia)* |
| 1000 - 1030 | **Non-uranium mining**  Frank Harris  *Rio Tinto (Australia)* | 1000 -1015 | **TBA** |
| 1030 - 1100 | **Protection of the Environment**  Professor David Copplestone  *University Of Stirling (UK)* | 1015 - 1030 | **Are Lightweight Lead Garments The Emperor’s New Clothes of the Angiography Suite?**  *Chris Boyd, South Australia Medical Imaging (Australia)* |
| 1030 - 1045 | **Unshackling Vascular Surgery from Ionising Radiation: A Review of Innovative No-Radiation and Low-Radiation (‘No-Lo’) Imaging Techniques**  *Li Yu, Royal Adelaide Hospital (Australia)* |
| **1100 - 1130** | **Morning Refreshments, Trade Exhibition & Poster Display** | *Trade Exhibition Hall* | |
|  | **Session 6.1**  **Radon in Mining and Beyond** | **Session 6.2**  **Radiation Protection in Medicine (2)** | |
| 1130 - 1200 | **Miners’ studies and radiation protection against radon**  Dominique Laurier  *IRSN (France)* | *1130-1145* | **Analysis of Mammography doses in Western Australia**  *Cameron Storm, Mtp (Australia)* |
| 1200 - 1230 | **ICRP recommendations on radon**  Dr John Harrison *Oxford Brookes University (UK)* | *1145-1200* | **ARPANSA’s national diagnostic reference level service – providing guidance on typical doses in medical imaging**  *Peter Thomas, Australian Radiation Protection And Nuclear Safety Agency (Australia)* |
| 1230 - 1300 | **Australian actions to reduce health risks from radon**  Rick Tinker  *ARPANSA (Australia)* | *1200-1215* | **CT scan exposure before age 20 and cancer risk: using propensity scores to account for confounding by indication**  *Jasmine McBain-Miller, University of Melbourne (Australia)* |
| *1215 - 1230* | **Patient-specific organ dose estimation in paediatric chest CT: The MEDIRAD project**  *John Damilakis, University Of Crete (Greece)* |
| *1230-1245* | **Calibration of an Internal Exposure Measurement Device using Computational Human Phantoms**  *Jooyub Lee, Sejong University (South Korea)* |
| **1300 – 1400** | **Lunch, Trade Exhibition & Poster Display** | *Trade Exhibition Hall* | |
|  | **Session 7.1**  **Other NORM Industries** | **Session 7.2**  **Radiation Protection in Medicine (3)** | |
| 1400 - 1430 | **ICRP approach for radiological protection from NORM in industrial** **processes**  Jean-Francois Lecomte  *IRSN (France)* | *1400 - 1415* | **Potential for nuclear medicine source tracking and licensing on a blockchain – lessons from pilot studies in nuclear safeguards**  *Edward Obbard, University Of New South Wales (Australia)* |
| 1430 - 1500 | **Trend of strengthening clearance regulation in Japan and concerns about its worldwide effects**  Takatoshi Hattori  *Criepi (Japan)* | *1415 - 1430* | **Advantages for a Primary Standards Dosimetry Laboratory in having a Medical Linear Accelerator**  *Peter Harty, ARPANSA (Australia)* |
| *1430 - 1445* | **Conservatism in linear accelerator bunker shielding**  *James Rijken, Genesiscare (Australia)* |
| 1500 - 1530 | **NORM and NORM waste management in China**  Senlin Liu  *China Institute of Atomic Energy (China)* | *1445 - 1500* | **Age dependent dynamic absorbed dose calculations to the urinary bladder wall for ICRP compartmental models of radiopharmaceuticals**  *Augusto Giussani, Lund University (Sweden)* |
| *1500 - 1515* | **Important Radiation Safety issues relevant to hospital based small medical cyclotrons used for PET radioisotope production**  *Bhaskar Mukherjee, University Of Sydney (Australia)* |
| **1530 - 1600** | **Afternoon Refreshments, Trade Exhibition & Poster Display** | *Trade Exhibition Hall* | |
|  | **MINES - Panel Discussion** | | |
| **1600 - 1730** | **NORM, Mines, and Future Trends**  *More information to come…* | | |
| 1900 - 2300 | **Symposium Gala Dinner** | *Panorama Ballroom* | |

|  |  |  |
| --- | --- | --- |
| **Wednesday 20 November 2019** | | |
| **ICRP 2019 – MEDICINE** | | |
| **RADIOLOGICAL PROTECTION CHALLENGES IN CUTTING-EDGE MEDICINE** | | |
| *Co-Chairs:* *Claire Cousins & Maria Perez* | | |
| 0800 – 1700 | Registration Desk Open | |
| 0845 - 0850 | **Welcome and Opening Remarks** | |
| 0850 - 0930 | **MEDICINE Keynote Lecture**  **Australian healthcare: How does radiation safety fit in?**  **Professor Brendan Murphy**  *Chief Medical Officer (Australia)* | |
|  | **Session 8**  **Healthcare Practitioners** | |
| 0930 - 1000 | **Australasian experience**  Giuseppe Sasso  (New Zealand) | |
| 1000 - 1030 | **Use of artificial intelligence in CT dose optimisation**  Cynthia McCollough  *American Association of Physicists in Medicine (USA)* | |
| 1030 - 1100 | **Effective dose in medicine**  Colin Martin  ICRP (UK) | |
| **1100 - 1130** | **Morning Refreshments & Poster Display** | *Trade Exhibition* |
|  | **Session 9**  **Role of Equipment Manufacturers in Radiological Protection** | |
| 1130 - 1200 | **What’s the point of innovation in patient dose monitoring?**  Jacqui Hislop-Jambrich  *Canon Medical ANZ (Australia)* | |
| 1200 - 1230 | **Therapy**  Kazuo Tomita  *(Japan)* | |
| 1230 - 1300 | **Nuclear medicine**  *Speaker TBA* | |
| **1300 - 1400** | **Lunch & Poster Display** | *Trade Exhibition* |
|  | **Session 10**  **Patient Focus** | |
| 1400 – 1430 | **Ethics in radiological protection for medical diagnosis and treatment: an update**  Francois Bochud  *(Switzerland & Marie-Claire Cantone, Italy)* | |
| 1430 - 1500 | **Patients’ perspectives on radiation in healthcare**  Lee Hunt  *Patient Advocate (Australia)* | |
| 1500 - 1530 | **Radiation protection challenges in application of ionising radiation on animals in veterinary practices**  *Nicole Martinez (USA) & Lodewijk Van Bladel (Belgium)* | |
| **1530 - 1600** | **Afternoon Refreshments, & Poster Display** | *Trade Exhibition* |
|  | **MEDICINE – Panel Discussion** | |
| 1600 - 1730 | **Raising Awareness of RP in Medicine**  *More information to come…* | |
| 1900 - 2300 | **VIP Reception**  *Invitation Only Function* | *Offsite* |

|  |  |  |
| --- | --- | --- |
| **Thursday 21 November 2019** | | |
| **ICRP 2019 – MARS** | | |
| **RADIOLOGICAL PROTECTION IN SPACE** | | |
| Co-Chairs: Christopher Clement & Aude Vignelles | | |
| 0800 – 1700 | Registration Desk Open |  |
| 0845 - 0850 | **Welcome and Opening Remarks** | *Hall M* |
| 0850 - 0930 | **MARS Keynote Lecture**  **Dr Robert Thirsk**  *Canadian Space Agency (Canada)* | |
|  | **Session 11**  **Radiological Protection in Space** | |
| 0930 – 1000 | **20 years of radiation protection experience with the International Space Station**  Mark Shavers  *(USA)* | |
| 1000 – 1030 | **Radiation environment in space and recent progress on space weather research for cosmic ray dosimetry**  Tatsuhiko Sato  *Japan Atomic Energy Agency (Japan)* | |
| 1030 – 1100 | **Space radiation effects in humans**  Marco Durante  (*Italy)* | |
| **1100 - 1130** | **Morning Refreshments & Poster Display** |  |
|  | **Session 12**  **Current Practice** | |
| 1130 - 1200 | **Current systems of risk/dose management of astronauts**  *Speaker TBA* | |
| 1200 - 1230 | **Ethics of RP in space**  Reverend Dr Nikki Coleman  *Royal Australian Air Force (Australia)* | |
| 1230 - 1300 | **Practicalities of dose management for Japanese ISS astronauts**  Tatsuto Komiyama,  *(Japan)* | |
| **1300 - 1400** | **Lunch & Poster Display** |  |
|  | **Session 13**  **Future Challenges** | |
| 1400 - 1430 | **Lifetime radiation risk of stochastic effects—Prospective evaluation for space flight or medicine**  Alexander Ulanowski  *IAEA (Vienna)* | |
| 1430 – 1500 | **Recent progress on Chinese space program and radiation research**  Guangming Zhou  *Soochow University (China)* | |
| 1500 – 1530 | **Radiation protection challenges for exploration**  Eddie Semones  *(USA)* | |
| **1530 - 1600** | **Afternoon Refreshments, & Poster Display** |  |
|  | **MARS Panel Discussion** | |
| 1600 - 1730 | **Next steps for RP in Space**  More information to come.. | |
|  | **Closing Ceremony** | |
| 1730 - 1740 | **Closing Remarks**  Claire Cousins | |
| 1740 - 1800 | Invitation to ICRP 2021 – Vancouver | |

*The ICRP 2019 reserves the right to amend or alter any advertised details relating to dates, program and speakers if necessary, without notice, as a result of circumstances beyond their control. All attempts have been made to keep any changes to an absolute minimum.*