

**Evolving new technology in COMPUTED TOMOGRAPHY:  
Dosimetry, Quality Assurance, Optimization  
22.-23.5.2014 in Helsinki**

**Preliminary program** (Draft 17.1.2014)

**Day 1 – Thursday 22<sup>nd</sup> of May 2014**

**9:00 – 11:00 Introduction**, Chair: Toni Ihalainen (FIN)

9 – 9:10 Opening words, welcome and general information, Toni Ihalainen

9:10 – 9:30 CT technology - from the beginning to this day, Mika Korttesniemi (FIN)

9:30 - 10 CT dosimetry - basics and challenges (ICRU 87, AAPM 204 etc.), Paula Toroi (FIN)

10 - 11 Image quality - basics and challenges, Sue Edyvean (UK)

**11:00 – 12:00 Lunch**

**12:00 – 13:30 Image quality**, Chair: Touko Kaasalainen

12 - 13 Use of model observers in CT optimization, Francis Verdun (SUI)

13 – 13:30 Current research aspects on image quality quantification, **NN (NN)**

**13:30 – 14:00 Coffee brake**, Exhibition

**14:00 - 16 Dosimetry**, Chair: Paula Toroi

14 -15 Monte Carlo simulations, Paul Deak (GER)

15:00 – 15:20 Effect of beam modulation techniques, Juha Nikkinen (FIN)

15:20 – 15:40 Using anthropomorphic phantoms for organ dose determination, Touko Kaasalainen

15:40 – 16 Dosimetry of pregnant patient in CT, Anna Kellaranta (FIN)

**16 – 18 Practical training** and exhibition

Modules: Anthropomorphic dose measurement with MOSFETs, patient dose calculation and simulation, dosimetry and quality assurance with CT

**19 – Social event** – *special program*

**Day 2 – Friday 23<sup>rd</sup> of May 2014**

**8:30 – 10 Iterative reconstruction**, Chair: Mika Korttesniemi (FIN)

8:30 – 9:30 Mathematics of model based iterative reconstructions, Jean-Baptiste Thibault

9:30 – 10 Practical experiences with the different iterative solutions, Kristin Jensen (NOR)

**10 – 10:30 Coffee break**

**10:30 – 12:00 Quality assurance**, Chair, Anne Thilander-Klang (SWE)

10:30 – 11:30 Updated International and Nordic guidance on CT QA, **NN(NN)**

11:30 - 12 Implementation of a QA regime in one part of Norway Bjørn Helge Østerås (NOR)

**12:00 - 13:00 Lunch**

**13 - 14.30 Medical perspective**, Chair: Asbjørn Seegert (DEN)

13 - 13:30 Paediatric dose collection, R. Seuri (FIN), H. Järvinen, A. Thilander-Klang (SWE)

13:30 – 14:30 Medicine for physicist - taught by radiologist

What do we see and how – basic anatomy and radiological review Eila Lantto (FIN)

**14:30 – 15 Coffee**

**15 – 16 Finale** Chair: Mika Korttesniemi (FIN)

15 – 16 Technical frontiers in CT optimization, Sub-mSv CT, prof. Willi Kalender (GER)

**16 – 18 Bus transportation to Turku** (III NACP Symposium and XIII Turku PET symposium)