

ELECTROMAGNETIC FIELDS IN THE WORKPLACE  
5-7.09.2005, WARSZAWA, POLAND  
(presentations accepted for oral sessions)

**Session 1. GENERAL ASPECTS OF EMF EXPOSURE AND REGULATIONS**

- ❑ Scientific background to the ICNIRP guidelines and the EU directive on EMF - Maila Hietanen, FIOH, Finland
- ❑ The EU Directive for occupational exposure to EMF: its purpose and its role in working life - Georges Herbillon, European Commission
- ❑ Time- and exposure level- dependent approach to workers protection against EMF harmful exposure, worked out in Poland - Jolanta Karpowicz, CIOP-PIB, Poland
- ❑ Precautionary measures for EMF exposures: justification and effectiveness - Paolo Vecchia, ISS, Italy
- ❑ New data on electric current perception challenge safety limits - Norbert Leitgeb, Graz University of Technology, Austria
- ❑ Protection from indirect effects due to electromagnetic interference – Paolo Rosssi, Rosaria Falsaperla, ISPESL, Italy
- ❑ EMF field characteristics and needs for exposure assessment techniques - Jolanta Karpowicz, CIOP-PIB, Poland and Kjell Hansson Mild, NIWL, Sweden

**Session 2. INSTRUMENTATION AND TECHNIQUES FOR EXPOSURE ASSESSMENT**

- ❑ Instrumentation for EMF exposure assessment - Krzysztof Gryz, CIOP-PIB, Poland
- ❑ Principles of Quasi-static Electromagnetic Dosimetry - Daniele Andreucetti, IFAC-CNR, Italy
- ❑ Principles of Electromagnetic Dosimetry and SAR evaluation for exposure to RF and MW - Luca Catarinuci, University of Lecce, Italy

**Session 3. OCCUPATIONAL EXPOSURE TO EMF IN VARIOUS SETTINGS**

- ❑ Sources for ELF, VLF, RF in offices - Monica Sandström, NIWL, Sweden
- ❑ Occupational exposure to power frequency fields in some electrical transformation stations in Romania - Cristian Goiceanu, Razvan Danulescu IPH, Romania
- ❑ Frequency- and time-domain assessment of EMF existing in the vicinity of electric power installations - Krzysztof Gryz, CIOP-PIB, Poland
- ❑ Assessment of magnetic field exposure from EAS devices and metal detectors - Kari Jokela, STUK, Finland
- ❑ Magnetic field near electrical welding equipment - Kjell Hansson Mild, NIWL, Sweden
- ❑ High exposure magnetic induction fields of industrial induction ovens placed in the framework of the Directive 2004/40/EC of the European Parliament and of the Council - Gilbert Decat, VITO, Belgium; L. Deckx, E. De Graef, F Umicore, Belgium; Joniet, CBMT, Belgium
- ❑ Magnetic field exposures from induction heaters - Philip Chadwick, MCL, UK
- ❑ EMF near plastic welding and glue drying machines - Olle Stensson, NIWL, Sweden
- ❑ Electromagnetic fields in the electrochemical industry - Eduardo Figueroa-Karlström, NIWL, Sweden
- ❑ EMF exposure assessment of railways systems' workers: the experience in Italy - Paolo Rossi, Rosaria Falsaperla, ISPESL, Italy

- ❑ EMF in medicine. Occupational exposure during diagnostic and therapeutic use - Jolanta Karpowicz, Krzysztof Gryz, CIOP-PIB, Poland
- ❑ Exposure assessment of non-ionizing radiation in physiotherapy - Michel Israel, M. Ivanova, P. Tschobanoff, Bulgaria
- ❑ EMF in wireless telecommunications - Tomi Alanko, FIOH, Finland
- ❑ RF fields at FM/TV broadcast stations - Lauri Puranen, STUK, Finland
- ❑ Carcinogenic risk in workers exposed to pulse-modulated (radar) microwave radiation - Stanisław Szmigielski, Elzbieta Sobiczewska, Roman Kubacki, WIHE, Poland
- ❑ Military radars and assessing of exposure levels of workers - Roman Kubacki, WIHE, Poland

**Session 4. EMF EXPOSURE ASSESSMENT AND EU DIRECTIVE PRACTICAL IMPLEMENTATION – ROUND TABLE**

- ❑ EMF-NET – scientific advice for practical guide for workers EMF exposure assessment (activities of EMF-NET MT-2) - Jolanta Karpowicz, CIOP-PIB, Poland
- ❑ CENELEC activities related to the occupational EMF directive - Philip Chadwick, MCL, UK, CENELEC
- ❑ Participants' presentations and open discussion

**Session 5. PROBLEMS AND PERSPECTIVES FOR COMPUTATIONAL DOSIMETRY OF WORKERS EXPOSED TO EMF**

- ❑ EMF-NET activities focused on computational dosimetry practical implementation for workers EMF exposure assessment - Paolo Rossi, ISPESL, Italy
- ❑ Numerical techniques for quasi-static electromagnetic dosimetry - Daniele Andreucetti, IFAC-CNR, Italy
- ❑ How to Determine Compliance with the Directive's Exposure Limit Values (ICNIRP Basic Restrictions) for Electric Welding - Yngve Hamnerius, Sweden
- ❑ A 3D approach to numerical dosimetry in quasi-static conditions: problems and example of solutions - Nicola Zopetti, IFAC-CNR, Italy
- ❑ Analysis of EMF hazards in the vicinity of dielectric heaters - results of measurements and numerical simulation with various methods – Krzysztof Gryz, Jolanta Karpowicz, Marcin Molenda, Patryk Zradziński, CIOP-PIB, Poland, Andrzej Więckowski, Ernest Mielniczek, Warsaw University of Technology, Poland
- ❑ High performance FDTD for human-antenna interaction problems in the near field - Luca Catarinucci, University of Lecce, Italy
- ❑ Development of flexible human voxel models for representation of exposure in complex posture condition - Carla Malacarne, ITC-IRST, Trento, Italy
- ❑ Modelling of human body with metal implant exposed to the magnetic field - Bartosz Sawicki, Jacek Starzyński, Stanisław Wincenciak, Warsaw University of Technology, Poland