

Theme 2

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Diagnostic Imaging



Theme Chairs:

Willi Kalender,
Friedrich-Alexander-
University Erlangen-
Nuremberg
Institute of Medical
Physics Erlangen,
Germany

John Boone,
University of
California Davis
Medical Center
Sacramento, USA

ABSTRACT:

The Diagnostic Imaging theme will focus on cutting edge research and state-of-the-art clinical applications of diagnostic imaging procedures in humans and small animals. The modalities of interest include x-ray radiography and mammography, computed tomography, SPECT and PET imaging, molecular imaging, magnetic resonance imaging, ultrasound imaging, impedance tomography, bioelectric and biodynamic imaging, optical imaging techniques, and contrast agent development using traditional and nanotechnology methodologies. Scientific research involving these modalities in the areas of quantitative imaging, anatomical and physiological characterization, and image reconstruction will be covered.

The World Congress will provide a forum for imaging scientists from around the world to present the results of novel imaging technology development, assessment techniques for quantitative imaging, radiation dose metrics for procedures using ionizing radiation, multi-modality imaging and image fusion procedures, as well as research and clinical applications of these technologies. In addition to the focus on imaging technology, the congress will also emphasize applications in image-guided intervention and therapy. The focus here will be on the added benefit that imaging provides to therapeutic procedures. Leaders from the image science community from around the globe will participate as keynote and invited speakers.

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TRACKS:

X-ray Imaging/ Mammography

Track Chairs:

Heinz-Otto Peitgen,
MeVis Research Center for
Medical Image Computing,
Bremen, Germany

John M. Boone,
UC Davis Medical Center,
Sacramento, USA

Computed Tomography

Track Chairs:

Willi Kalender,
Friedrich-Alexander-Uni-
versity Erlangen-Nuremberg,
Erlangen, Germany

Guang-Hong Chen,
The University of
Wisconsin,
Madison, USA

Magnetic Resonance Tomography

Track Chairs:

Jürgen Hennig,
University of Freiburg,
Germany

Klaas Paul Prüssmann,
ETH Zurich,
Switzerland

Ultrasound Imaging

Track Chairs:

Helmut Ermert,
Ruhr-Universität
Bochum, Germany

Pai-Chi Li,
National Taiwan University,
Taipei, Taiwan

SPECT* and PET**

Track Chairs:

Sibylle Ziegler,
Technical University of
Munich, Germany

Habib Zaidi,
Geneva University Hospital,
Switzerland

Molecular Imaging

Track Chairs:

Fabian Kiessling,
RWTH Aachen University,
Germany

Vasilis Ntziachristos,
Technical University of
Munich, Germany

Optical Imaging

Track Chairs:

Achim Langenbucher,
Friedrich-Alexander-Uni-
versity Erlangen-Nuremberg,
Erlangen, Germany

William Frith Harris,
Johannesburg University,
South Africa

Imaging Bioimpedance and Bioelectric Sources

Track Chairs:

Rob MacLeod,
University of Utah,
Salt Lake City, USA

Olaf Dössel,
University of
Karlsruhe (TH), Germany

Miscellaneous Topics

Track Chairs:

Willi Kalender,
Friedrich-Alexander-
University Erlangen-
Nuremberg,
Erlangen, Germany

Charles A. Mistretta,
University of Wisconsin,
Madison, USA

*Single Photon Emission Computed Tomography
** Positron-Emission Tomographie