CARS 2018
COMPUTER ASSISTED RADIOLoGY AND SURGERY
32nd International Congress and Exhibition

Main Themes
- Medical Imaging
- Computed Maxillofacial Imaging
- Image Processing and Visualization
- PACS and IHE
- Telemedicine and E-Health
- Computer Aided Diagnosis
- Computer Assisted Radiation Therapy
- Image and Model Guided Therapy
- Personalized Medicine
- Surgical Navigation
- Surgical Robotics and Instrumentation
- Surgical Simulation and Education
- Computer Assisted Orthopaedic and Spinal Surgery
- Computer Assisted Head and Neck, and ENT Surgery
- Image Guided Neurosurgery
- Minimally Invasive Cardiovascular and Thoracoabdominal Surgery
- Information Processing in Computer-Assisted Intervention
- Digital Operating Room
- Human-Machine Interface
- Pathology Informatics
- Integrated Patient Care
- Tumor Boards
- Innovative Clinical Investigations

Deadline for abstract/paper submission: 10th January 2018

1ST ANNOUNCEMENT

June 20–23, 2018
Berlin, Germany

President
Volkmar Falk, MD (D)

Congress Organizing Committee
Christos Angelopoulos, DDS (USA)
Elizabeth Beckmann, BSc (UK)
Leonard Berliner, MD (USA)
Ulrich Bick, MD (D)
Davide Caramella, MD (I)
Kevin Cleary, PhD (USA)
Takeyoshi Dohi, PhD (J)
Kunio Doi, PhD (USA)
Volkmar Falk, MD (CH)
Allan G. Farman, PhD, DSc (USA)
Hubertus Feussner, MD (D)
Guy Frija, MD (F)
Olga Golubnitschaja, MD (D)
Miguel A. González Ballester, PhD (E)
Makoto Hashizume, MD, PhD, FACS (J)
Yoshihiko Hayakawa, PhD (J)
Javier Herrero Jover, MD, PhD (E)
David Hilderbrand (USA)
Kiyonari Inamura, PhD (J)
Pierre Jannin, PhD (F)
Leo Joskowicz, PhD (IL)
Tina Kapur, PhD (USA)
Heinz U. Lemke, PhD (D) (Chair)
Kensaku Mori, PhD (J)
Hironobu Nakamura, MD, PhD (J)
Nassir Navab, PhD (D)
Terry M. Peters, PhD (CDN)
Osman M. Ratib, MD, PhD (CH)
Hans G. Ringertz, MD, PhD (S)
Ramin Shahidi, PhD (USA)
Hiroyuki Yoshida, PhD (USA)

www.cars-int.org
32nd International Congress and Exhibition on Computer Assisted Radiology (CAR)

Chairmen: Olga Golubnitschaja, MD (D), Heinz U. Lemke, PhD (D)

- Medical Imaging, e.g., DR, CT, MR, Virtual Endoscopy, US, SPECT, PET and Molecular Imaging
- Computer Assisted Cardiovascular Imaging
- Image Processing and Display
- Quantitative Imaging Biomarkers
- Medical Workstations
- Interventional Radiology
- Minimally Invasive Spinal Therapy
- Image Guided Diagnosis and Therapy of the Prostate
- Ablation Therapies
- Image Guided Radiation Therapy
- Nanotechnology for Imaging and Therapy
- Telemedicine, E-health and Multimedia EPR
- Expert Systems and Computer Assisted Education
- Economic and Management Issues
- Security, Legal and Ethical Aspects
- PACS Architecture, Workstation Design and Workflow
- Image Distribution, Storage and Archiving Strategies
- Interoperability and Standardization
- Managing Radiation Dose and Contrast Media
- Clinical Decision Support Systems

22nd Annual Conference of the International Society for Computer Aided Surgery

President: Pierre Jannin, PhD (F)

- Augmented Reality, Virtual Reality for Surgery and Interventions
- Image Processing and Visualization
- Intraoperative Devices and Sensors
- Intraoperative Imaging
- Computer-assisted Planning
- Surgical Navigation
- Navigated Control
- Surgical Robotics and Instrumentation
- 3D Modeling and Rapid Prototyping
- Methods of Validation and Verification
- Evaluation of CAS Systems
- Postoperative Result Assessment
- Surgical Knowledge and Decision Management
- Decision and Action Support in Surgical Management
- Situation Awareness in the OR
- Surgical Skill Assessment
- Surgical Workflow Analysis
- Surgical Simulation, Education and Training
- Ergonomics, User Interfaces, Haptics and Multimodal Devices in Surgical Applications
- Brain-Computer Interface, Neurostimulation
- Computer aided surgery in neuro, ENT, orthopaedic and spinal, cardiovascular, thoracic, gastroenterological, gynaecological and urological surgery
- Image Guided Navigation Surgery
- Minimally Invasive Robotic Surgery
- Image Guided Therapy

20th International Workshop on Computer-Aided Diagnosis

Chairman: Hiroyuki Yoshida, PhD (USA)

- Deep Learning / Machine Learning
- Radiomics
- CAD for Precision Medicine
- 3D Printing
- Grand Challenges in CAD
- Quantitative Imaging
- Risk Assessment
- Decision Support Systems
- Comparative Evaluation and Fusing CAD systems
- Content-based Image Retrieval
- Observer Performance Studies
- Clinical Evaluation
- Cloud CAD
- CAD for Breast, Lung, Colon and Gastrointestinal Tract, Eye/Retina, Head and Neck, Liver, Prostate, Musculoskeletal, Cardio-Vascular, Multiple Organ Systems, and Dentistry
- CAD for Oncology
- CAD for Histopathology and Microscopy

9th Conference on Information Processing in Computer-Assisted Intervention (IPCAI)

Chair: Ken Okada, MD, PhD (J), Parvin Mousavi, PhD (CDN), Danail Stoyanov, PhD (UK)

- Surgical Data Science
- Interventional Imaging
- Systems and Software
- Evaluation and Validation
- Tracking and Navigation
- Interventional Robotics
- Surgical Planning and Simulation
- Advanced Intra-operative Visualization and User Interfaces
- Augmented Reality for Medical Applications
- Surgical Skill Analysis and Workflow

10th EPMA/IFCARS Workshop on Personalized Medicine and ICT

Chairmen: Olga Golubnitschaja, MD (D), Heinz U. Lemke, PhD (D)

- Model-Guided Medicine
- Patient-Specific Modelling
- Model Management
- Clinical Examples of Personalized Medicine in Oncology

CARS Conference Office · 79790 Kuessaberg, Germany · office@cars-int.org