

Tuesday - November 17

09:00 - 10:00

Opening

Room: Leonidas Proaño

Opening Ceremony with participation of Presidents of both Organizing Universities

10:15 - 11:35

Digital Pathology

Room: Leonidas Proaño

Chair: Anant Matabushi

A Low Dimensional Entropy Based Descriptor of Several Tissues in Skin Cancer Histopathology Samples
Pablo Álvarez, Germán Corredor, Juan D. García-Arteaga and Eduardo Romero
Universidad Nacional de Colombia, Bogotá, Colombia

A method for Medulloblastoma Tumor Differentiation based on Convolutional Neural Networks and Transfer Learning

Angel Cruz-Roa, John Arévalo, Alexander Judkins, Anant Madabhushi and Fabio González
Universidad Nacional de Colombia, Bogotá, Colombia;
Children's Hospital Los Angeles, Los Angeles, Western Reserve University, Cleveland, OH, USA

Unsupervised Color Normalisation for H&E stained Histopathology Image Analysis

Raúl Celis and Eduardo Romero
Universidad Nacional de Colombia, Bogotá, Colombia

Data Modeling

Room: Luna Tobar

Chair: Marius Linguraru

Efficient scatter model for simulation of Ultrasound images from Computed Tomography data

J.P. D'Amato, L. Lo Vercio, P. Rubi, E. Fernandez Vera, R. Barbuza and M. Del Fresno Larrabide
Consejo Nacional de Inv. Científicas y Técnicas (CONICET), CABA, Argentina
Instituto PLADEMA - UNCPBA, Tandil, Argentina
Comisión de Inv. Científicas de la Prov. Bs. As., La Plata, Argentina

Fast pseudo-CT synthesis from MRI T1-weighted images using a patch-based approach

A. Torrado-Carvajal, E. Alcaín, A. S. Montemayor, J. L. Herraiz, Y. Rozenholc, J. A. Hernandez-Tamames, E. Adalsteinsson, L. L. Wald, N. Malpica,
Universidad Rey Juan Carlos, Mostoles, Madrid; University Paris Descartes, Paris, Paris, France;
Massachusetts Institute of Technology, Cambridge, Massachusetts, USA

A hybrid method for efficient and accurate simulations of compartment diffusion imaging signals

Gaëlan Renssonnet, Maxime Taquet and Benoît Macq
Université catholique de Louvain, Belgium; Boston Childrens Hospital & Harvard Medical School, Boston, MA, USA;

13:30 - 14:30

Keynote

Room: Leonidas Proaño

Computational Imaging will drive precision medicine: Use cases in lung, head, and rectal cancers

Anant Madabhushi
Case Western Reserve University, Cleveland, OH, USA

14:30 - 15:50

Tractography & Connectivity

Room: Leonidas Proaño

Chair: Darryl Hwang

Tract specific analysis in patients with sickle cell disease

Yaqiong Chai, Julie Coloignera, Xiaoping Qua, Adam Bush, Matt Borzage, Chau Yu, Soyong Choi, Natasha Lepore, John Wood
Children's Hospital Los Angeles, CA, USA, University of Southern California, CA, USA

Reconstruction of major fibers using 7T multi-shell Hybrid Diffusion Imaging in mice

Madelaine Daianu, Russell E. Jacobs, Berislav V. Zlokovic, Axel Montagne, Paul M. Thompson
University of Southern California, CA, USA; UCLA School of Medicine, Los Angeles, CA, USA; California Institute of Technology, CA, USA

Blockmodels for Connectome Analysis

Daniel Moyera, Boris Gutman, Gautam Prasad, Joshua Faskowitz, Greg ver Steeg, and Paul Thompson
University of Southern California, Los Angeles, CA, USA; Stevens Neuroimaging and Informatics Institute, Marina Del Rey, CA, USA; Information Science Institute, Marina Del Rey, CA, USA

Adaptive Algorithms to Map how Brain Trauma Affects Anatomical Connectivity in Children

Emily L. Dennis, Gautam Prasad, Claudia Kernan, Talin Babikian, Richard Mink, Christopher Babbitt, Jeffrey Johnson, Christopher C. Giza, Robert F. Asarnow, Paul M. Thompson
School of Medicine, Marina del Rey, USA; UCLA, USA;

Multidimensional Interactive Radiology Report and Analysis: Standardization of workflow and reporting for renal mass tracking and quantification

Darryl H. Hwang, Kevin Ma, Fernando Yepes, Mridula Nadamuni, Megha Nayyar, Vinay Duddalwar, Natasha Lepore
University of Southern California, Los Angeles, CA, USA; Children's Hospital Los Angeles, CA, USA

On the Illumination Compensation of Retinal Images by Means of the Bidimensional Empirical Mode Decomposition

Andrés G. Marrugo, Raúl Vargas, Melet Chirino, and María S. Millán
Universidad Tecnológica de Bolívar, Cartagena, Colombia. Universitat Politècnica de Catalunya, Spain.

Mobile application to induce lifestyle modifications in type 2 diabetic patients: prototype based on international guidelines

M. García-Jaramillo, J.S. Delgado, and F. León-Vargas
Universidad Antonio Nariño, Bogotá, Colombia

16:10 - 18:00

Tutorials

Room: Luna Tovar

Chair: Fernando Mora

Non-Invasive Brain-Machine-Brain Interfaces

Carlos Julio Tierra Crisollo
Federal University of the Rio de Janeiro, Brazil
Room: Leonidas Proaño

Computational Anatomy in Abdominal Imaging

Marius Linguraru
Sheikh Zayed Institute for Pediatric Surgical Innovation
Children's National Health System
Room: Luna Tovar