

Wednesday - November 9

Chile Time

8:00

Registration & Opening

9:30

Chair:
Dr. Leticia Rittner

Salón T

Keynote Speaker: Dr. Richard Frayne
Talk: "Quantitative MR Imaging and the Aging Brain"

Coffee break

10:30

Gait & Digital Pathology

Chair: Dr. Darryl Hwang
Salon T

11:00

Detecting Parkinson Disease Features with Walking Activity Data

Presenter: Cicero Ferreira Fernandes

Movements acquisition based on the Archimedean Spiral Test using Leap Motion Controller

Presenter: Alejandro Weinstein

Muscle coactivation during the human gait after Achilles reconstruction surgery. A case report.

Presenter: Alejandro Weinstein

Bridging Radiomics to Tumor Immune Microenvironment Assessment in Clear Cell Renal Cell Carcinoma

Presenter: Alexander Shieh

Unsupervised White Blood Cell characterization in the latent space of a Variational Autoencoder

Presenter: Jonathan Tarquino Gonzalez

Lunch

12:15

Chair:
Dr. Jorge Brieva

Salón T

Keynote Speaker: Dr. Karim Lekadir
Talk: "How to build trustworthy and deployable artificial intelligence tools in medicine"

14:00

Coffee break

15:00

Brain Imaging I

Chair: Dr. Wael El-Deredy
Salón T

Biosignals I

Chair: Dr. Alejandro Weinstein
Sala T 102

15:30

A synthetic normative template for Parkinson's disease studies using structural and neuromelanin-sensitive magnetic resonance imaging
Presenter: Stefan Psczolkowski

Fiber bundles simulator using exponential curves to validate fiber clustering algorithms
Presenter: Elida Poo

Can incomplete silver standard labels improve performance of DTI-based volumetric segmentation of the corpus callosum?
Presenter: Joany do Socorro Rodrigues

Superficial white matter shape characterization using hierarchical clustering and a multi-subject bundle atlas
Presenter: Cristóbal Mendoza

Group-Wise Cortical Parcellation Based on Structural Connectivity and Hierarchical Clustering
Presenter: Joaquín Molina

Detection of muscle activations by surface electromyography in patients with dysphagia
Presenter: Laura Vanessa Suárez

High-density electromyography as a method for estimating laryngeal muscle activity: A Preliminary study
Presenter: Josue Martinez

Assessing phoneme distribution for speech modeling
Presenter: Jesus Alberto Parra

Correntropy-based linear prediction for voice inverse filtering
Presenter: Iván Ariel Zalazar

Special session

LABMAN: Human Brain Mapping databases and analysis in Latin America

Chair: Wael El-Deredy
Salón T

Dr. Steren Chabert - Talk: "Functional MRI reliability in patients with glioma: observation from a 50-patients cohort in Valparaiso"

Dr. Sebastián Moguilner - Talk: "Data science applied to inter-regional collaboration"

Dr. Juan Pablo Ramirez - Talk: "Dysconnectivity in schizophrenia revisited: abnormal temporal organization of dynamic functional connectivity in patients with a first episode of psychosis"

Dr. Manuel Hinojosa - Talk: ""

16:45

Salón T

Welcome Reception

18:15

Thursday - November 10

Chile Time

Registration 8:00

E-health and AI
Chair: Dr. Darryl Hwang
Salón T

Deep Learning 8:45
Chair: Dr. Rodrigo Salas
Sala T 102

Machine learning based prediction of diabetes risk by combining environmental and electrocardiographic predictors
Presenter: Marina Camacho Sanz

A deep learning model for brain vessel segmentation in 3DRA with arteriovenous malformations
Presenter: Camila García

A Named Entity Recognition framework using Transformers to identify relevant clinical findings from mammographic radiological reports
Presenter: Eduardo Godoy

Automatic Segmentation of brain tumor in multi-contrast magnetic resonance using deep neural network
Presenter: Eduardo Cavieres

Assessment of panoramic ultrasound reconstruction imaging using a tele-medicine equipment: A phantom experiment
Presenter: Diana Naomi Guevara

Predicting Dementia Severity by Merging Anatomical and Diffusion MRI with Deep 3D Convolutional Neural Networks*
Presenter: Tamoghna Chattopadhyay

Towards breastfeeding self-efficacy and postpartum depression estimation based on analysis of free-speech interviews through Natural Language Processing
Presenter: Luz Itzel Valdeolivar

Learning Optimal White Matter Tract Representations from Tractography using a Deep Generative Model for Population Analyses*
Presenter: Yixue Feng

Development of Multiscale 3D Residual U-Net to Segment Edematous Adipose Tissue by Leveraging Annotations from Non-Edematous Adipose Tissue
Presenter: Jianfei Liu

The Transfer Learning Gap: Quantifying How Much Learning is Transferred in Transfer Learning. A Medical Image Case*
Presenter: Javier Guerra

Automatic Tooth Segmentation from 3D Dental Model using Deep Learning: A Quantitative Analysis of what can be learnt from a Single 3D Dental Model*(Live Presentation)
Presenter: Ananya Jana

Chair: Dr. Natasha Lepore
Salón T

Keynote Speaker: Dr. Maria Ledesma
Talk: "Challenges in spatio-temporal medical image processing"

10:15

Coffee break

11:15

Chair: Dr. Marius Lingurar
Salón T

Keynote Speaker: Dr. Ramón Sánchez-Jacob
Talk: "AI, the pediatric radiology perspective"

11:30

Lunch

12:30

Body Imaging I
Chair: Dr. Steren Chabert
Salón T

Biosignals II
Chair: Dr. Matías Zañartu
Sala T 102

14:00

Self-Supervised Equivariant Regularization Reconciles Multiple Instance Learning: Joint Referable Diabetic Retinopathy Classification and Lesion Segmentation
Presenter: Natasha Lepore

Seizure detection by analyzing the number of channels selected by cross-correlation using TUH EEG Seizure Corpus
Presenter: Frank Alexis Díaz

CEUS-based Characterization Solid Renal Masses: A role for quantitative imaging approaches
Presenter: Bino Varghese

Imputing missing electroencephalography data using graph signal processing
Presenter: Alejandro Weinstein

Effects and methodology for grid subdivision of CT-based texture for unsupervised clustering
Presenter: Kenneth G. M. Cunanan

An automatic method for detection of evoked events in the brain during spinal cord stimulation
Presenter: Leonel E. Medina

CEM Radiomics for Distinguishing Lesion from Background Parenchymal Enhancement in Patients with Invasive Breast Cancer
Presenter: Bino Varghese

Early processing of unattended emotional faces increases the brain response to attended emotional expressions: An SSVEP study
Presenter: Franco Lepore

Multi-Platform Fractal Dimension Analysis Of Renal Masses From Multiphase Contrast-Enhanced CT As Markers For Tumor Subtyping
Presenter: Darryl Hwang

Beyond global synchrony: Equivalence between Kuramoto oscillators and Wilson-Cowan model for large scale brain networks
Presenter: Felipe Torres

Body Location Embedded 3D U-Net (BLE-U-Net) for Ovarian Cancer Ascites Segmentation on CT Scans
Presenter: Jianfei Liu

Poster session & coffee break

15:30

AC3E Center Visit

16:30

SIPAIM Dinner

19:00

* Virtual presentation

Friday - November 11

SIPAM 2022

Chile Time

Registration

8:00

Ultrasound

Chair: Dr. Bino Varghese
Salón T

Body and Brain Imaging

Chair: Dr. Julio Sotelo
Sala T 102

8:45

From Single-Visit to Multi-Visit Image-Based Models: Single-Visit Models are Enough to Predict Obstructive Hydronephrosis
Presenter: Stanley Bryan Z. Hua

A ResNet is All You Need? Modeling A Strong Baseline for Detecting Referable Diabetic Retinopathy in Fundus Images
Presenter: Camila García

Automatic Detection of Lung Ultrasound Artifacts using Deep Neural Networks approach
Presenter: Carlos Eduardo Vasquez

Assessing Coarse-to-Fine Deep Learning Models for Optic Disc and Cup Segmentation in Fundus Images
Presenter: Eugenia Moris

Development of an acquisition system to monitoring asynchronous tele-ultrasound for lung patients
Presenter: Esteban Rolando Avilés

VENTSEG: Efficient Open Source Framework for Ventricular Segmentation
Presenter: Julio Sotelo

Monitoring of Lung Ultrasound Acquisition using Volume Sweep Imaging Protocol
Presenter: Diana Naomi Guevara

Building Brain Tumor Segmentation Networks with User-Assisted Filter Estimation and Selection
Presenter: Matheus Cerqueira

Qualitative and quantitative comparison of simulated ultrasound images generated by Delay-and-Sum and Minimum Variance techniques
Presenter: Michel Andrey Kohler

Changes in 3D Radiomic Texture Descriptors in Alzheimer's Disease Stages
Presenter: Kauê Tartarotti Nepomuceno

Tissue characterization of renal masses using Nakagami-modeling of ultrasound-based texture
Presenter: Bino Varghese

Chair:
Dr. Pamela Guevara

Keynote Speaker: Dr. Claudia Prieto

Talk: "Comprehensive Cardiac Magnetic Resonance Imaging: from MR Physics to Deep Learning"

10:15

Coffee break

11:15

Biosignals III

Chair: Dr. Alejandro Weinstein
Salón T

Biomedical Imaging - Virtual Session

Chair: Dr. Leonel Medina
Sala T 102

11:30

Authentication of Medical Images through a Hybrid Watermarking Method based on Hermite-Jigsaw-SVD
Presenter: Ernesto Moya-Albor

NEC-NET : Segmentation and Feature Extraction Network for the Neurocranium in Early Childhood* (Live Presentation)
Presenter: Di Fan

A simulation study to compare Shear Wave Speed estimators of the Reverberant Shear Wave Elastography approach
Presenter: Adriana Romero

Predicting individual brain MRIs at any age using style encoding generative adversarial networks*
Presenter: Shruti P. Gadewar

Source separation for single channel thoracic cardio-respiratory sounds applying Non-negative Matrix Factorization (NMF) using a focused strategy on heart sound positions
Presenter: Christian Escobar Arce

Evaluation of Transfer Learning Methods for Detecting Alzheimer's Disease with Brain MRI*
Presenter: Nikhil Dhinagar

Constrained extended Kalman filter for improving Bayesian inference of vocal function from laryngeal high-speed videoendoscopy
Presenter: Emiro Ibarra

Deep Semi-Supervised and Self-Supervised Learning for Diabetic Retinopathy Detection*
Presenter: Oscar Julián Perdomo

Modeling of the Mayor Temporal Arcade using Genetic Algorithms and Orthogonal Polynomials*
Presenter: José Alfredo Soto Álvarez

Design and Construction of a Pulmonary Auscultation System as a Support Tool in the Objective Respiratory Diseases Diagnosis* (Live Presentation)
Presenter: Daniel Armando Ruiz

Salón T

Closing ceremony and Awards

13:00

13:30

* Virtual presentation