

Organizing Committee



Marseille Imaging Institute organizes a R&D seminar.

This week will be dedicated to the meeting between our community of researchers, teachers and students with the actors of the socio-economic world.

The idea is to present evolution of imaging, professions, life courses to provide our students with a vision of the future and possibilities in the field of imaging.

We have the chance to bring together European and global experts on each theme and also many partners of the socio-economic world.

We offer a dual format (face-to-face or videoconference), an opportunity to ensure the cross-fertilization of disciplines and to promote contacts between students, researchers, teachers and partner of the socio-economic world.

Enjoy...

Here are the different formats and events of the week

Amphitheatre

&

Exhibition Hall



PLENARY SESSION

In the amphitheatre, the speakers of the plenary sessions will introduce the thematic field and then develop aspects of the state of the art and the most recent advances.

JOB MEETING

In the exhibition hall, many partners will be present to exchange and discuss about job possibilities in their company in the field of imaging.

POSTER SESSION

In the exhibition hall, students will have the chance to present their thesis work in poster format in the exhibition hall.

DOCTORAL SESSION

In the amphitheatre, selected PhD students will have the opportunity to orally present their research.

RESEARCH SESSION

In the amphitheatre, research focus speakers will focus on the most advanced topics related to their field.

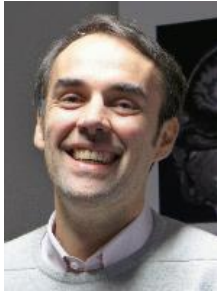
INDUSTRIAL SESSION

In the amphitheater, speakers will present the evolution of technologies, life paths... and will be available to discuss at the booths located in the exhibition hall.

MRI Imaging

26th of September

Registration & Coffee Break - 8:30 AM



PLENARY SESSION – 9:30 AM

Alexandre VIGNAUD

UHF MRI, the field of dreams.

CEA Neurospin, Paris-Saclay, FRANCE.

EXHIBITION Hall, POSTER SESSION – 11 AM

Industrial Partners / MULTIWAVE Imaging, VENTIO

Academic Partners / SATT-SE, CISAM, Pepite Provence, Institut Carnot Star

Lunch Break

DOCTORAL SESSION – 1:30 PM

- **Pierre DAUDE** (1:30 PM) – **Trajectory correction enables Free running cardiac Dixon for proton-density fat fraction quantification at 3T.**
Centre for Magnetic Resonance in Biology and Medicine (CRMBM), Aix Marseille Univ, FRANCE
- **Guillaume FREBOURG** (2 PM) - **MR perfusion of the Spinal Cord at 3T in patients with degenerative and traumatic cervical myelopathy: Preliminary results using a Dynamic Contrast Enhanced approach.**
Centre for Magnetic Resonance in Biology and Medicine (CRMBM), Aix Marseille Univ, FRANCE

RESEARCH SESSION – 2:30 PM



- **Nikolai AVDIEVITCH** (2:30PM) – **New Technology in Designing Head MRI RF Coils at UHF: Dipole Antennas.**
High-field Magnetic Resonance Center, Max Planck Institute for Biological Cybernetics, Tübingen, GERMANY
- **Patrick COZZONE** (3 PM) - **The Bioimaging Consortium in Singapore.**
CRMBM-CEMEREM, UMR 7339, CNRS, Aix-Marseille University, Marseille, FRANCE.

Coffee Break

INDUSTRIAL SESSION – 4:15 PM



- **Marc DUBOIS** (4:15PM) - **MRI for All – Ultra-Portable Low Field MRI scanner.**
MULTIWAVE Imaging, Marseille, FRANCE

ARTIFICIAL INTELLIGENCE for medical Image Applications

27th of September

Registration & Coffee Break - 8:30 AM



PLENARY SESSION – 9:30 AM

Carole LARTIZIEN

A 45 min tour of deep learning for medical image analysis.
CREATIS Medical Imaging research Center, Lyon, FRANCE.

EXHIBITION Hall, POSTER & JOB MEETING – 10:30 AM

Industrial Partners / VENTIO, Avicenna, Intradys
Academic Partners / SATT-SE, CISAM, Pepite Provence, Institut Carnot Star

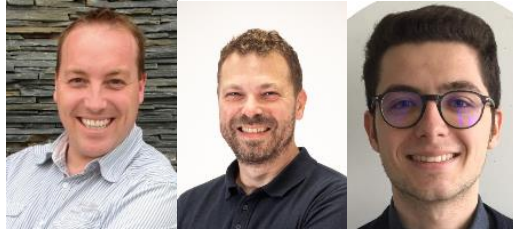
Lunch Break

DOCTORAL SESSION – 1:30 PM

- **Armando GARCIA** (1:30 PM) – **Synthetic Computed Tomography Generation for Magnetic Resonance-only Radiotherapy.**
FRESNEL Institute, Aix Marseille Univ, FRANCE
- **Marc-Adrien HOSTIN** (2 PM) – **CNN-based segmentation in neuromuscular MRI**
Centre for Magnetic Resonance in Biology and Medicine (CRMBM), Laboratoire d’Informatique et Systèmes (LIS), Aix Marseille Univ, FRANCE

R&D Seminar – “IMAGING 2022”

INDUSTRIAL SESSION – 2:30 PM



- **Guillaume DARDENNE** (2:30 PM) - **FollowKnee : an innovative workflow for Total Knee Arthroplasty.**
Laboratoire de Traitement de l'Information Médicale, LaTIM, UMR INSERM 1101, Brest, FRANCE.
- **Cyril DI GRANDI** (3 PM) – **Avicenna.ai - l'AI Factory - entrepreneuriat et technologie.**
Artificial Intelligence solutions for Radiology
AVICENNA.AI, La ciotat, FRANCE
- **Lorenzo CARUSO** (3:30 PM) - **First Work Experience at INTRADYS: High Challenges, High Opportunities.**
Interventional neuroradiology
INTRADYS, Brest, FRANCE.

Coffee Break

INDUSTRIAL SESSION – 4:30 PM



- **Raphaël LA GRECA** (4:30PM) - **Imaging in medical devices: application examples.**
Technologies to help surgery
PYTHEAS NAVIGATION, Marseille, FRANCE
- **Ludovic DE ROCHEFORT** (5 PM) – **Ventio, digital health startup - valorization of innovative brain imaging biomarkers - secure image processing on the cloud.**
Data Processing
VENTIO, Marseille, FRANCE.

SYMPOSIUM

CLIMATE IMPACT OF DEEP LEARNING - 5:30 PM



CHAIRMEN :

Marc-Emmanuel BELLEMARE

Laboratoire Informatiques & Systèmes (LIS), Aix Marseille Univ, Marseille, FRANCE

Julien LEFEVRE

Institut de Neurosciences de la Timone (INT), Aix Marseille Univ, Marseille FRANCE



Anne-Laure LIGOZAT

Carbon footprint of deep-learning.

Laboratoire Interdisciplinaire des sciences du numérique (LISN)
Université Paris-Saclay, CNRS, ENSIIE, Orsay, FRANCE.

OPTICAL Imaging

28th of September

Registration & Coffee Break - 8:30 AM



PLENARY SESSION – 9:30 AM

Cathie VENTALON

High-speed recording of neuronal activity in freely-behaving mice using confocal fluorescence imaging.

Institut de Biologie de l'École Normale Supérieure (IBENS), ENS, CNRS-UMR8197, Paris, FRANCE.

EXHIBITION Hall, POSTER SESSION – 11 AM

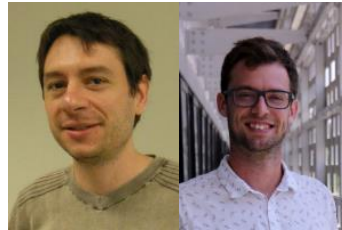
**Industrial Partners / First Light Imaging, Nikon, Abbelight, Kaerlabs, Photon Lines
Academic Partners / SATT-SE, CISAM, Pepite Provence, Institut Carnot Star**

Lunch Break

DOCTORAL SESSION – 1:30 PM

- **Eleanor MUNGER** (1:30 PM) – **3D molecular orientation microscopy via 4 polarized emission channels.**
FRESNEL Institute, Aix Marseille Univ, FRANCE
- **Florian WERNERT** (2 PM) – **Exploring the functional relationship between clathrin pits and axonal cytoskeleton through multimodal microscopy.**
Institute of Neurophysiopathology (INP), Aix Marseille Univ, FRANCE

RESEARCH SESSION – 2:30 PM



- **Aymeric LERAY** (2:30PM) – **Fluorescence lifetime imaging microscopy for quantifying molecular interactions by Förster resonance energy transfer (FRET).**
Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB), Univ de Bourgogne Franche Comté, Dijon, FRANCE.
- **Amaury BADON** (3 PM) - **Label-free deep imaging of biological samples.**
Laboratoire Photonique Numérique et Nanosciences (LP2N), Institut d’Optique – Université de Bordeaux, Talence, FRANCE.

Coffee Break

INDUSTRIAL SESSION – 4:15 PM



- **Nicolas BOURG** (4:15PM) - **Breaking the diffraction barrier using Single Molecule Localization Microscopy.**
Imaging for Microscopy to single-molecule localization
ABBELIGHT, Cachan, FRANCE
- **Paul DORVAL** (4:45 PM) - **In-vivo fluorescence imaging :from near infrared to shortwave infrared.**
In vivo open fluorescence Imaging Near infrared (NIR) and NIR-II
KAER LABS, Nantes, FRANCE.

NUCLEAR MEDICINE Imaging

29th of September

Registration & Coffee Break - 8:30 AM



PLENARY SESSION –9:30 AM

Mickael BOURGEOIS

Theranostic approaches in nuclear medicine: exploration of the cancer phenotype for tailored therapy.

Nantes-Angers Cancer & Immunology Research Cancer (CRCI2NA),
CHU de Nantes, FRANCE.

EXHIBITION Hall, POSTER & JOB MEETING – 11 AM

Industrial Partners / PMB-ALCEN, Vect-Horus, Newton Partners
Academic Partners / SATT-SE, CISAM, Pepite Provence, Institut Carnot Star

Lunch Break

DOCTORAL SESSION – 1:30 PM

- **Floriane CANNET** (1:30 PM) – **Deep-learning data processing of spectral PC-CT longitudinal studies to design and optimize combined Immuno-anticancer Treatments in liver cancer mouse models.**
Centre de Physique des Particules de Marseille, Aix Marseille Univ, FRANCE
- **Béatrice LOUIS** (2 PM) – **Development of a nanoradiotracer for the molecular imaging of tumor vascular heterogeneity.**
Centre de Recherche en CardioVasculaire et Nutrition (C2VN), Aix Marseille Univ, FRANCE

INDUSTRIAL SESSION – 2:30 PM



- **Laurent TANGUY** (2:30 PM) - **Automated microfluidic production of radiotracers for personalized medicine.**
Technologies for radiotherapy
PMB-ALCEN, Peynier , FRANCE
- **Cédric MALICET** (3 PM) - **From Bench to Clinic.**
Biotechnologies to deliver imaging agents or therapeutic molecules in brain
VECT-HORUS, Marseille, FRANCE.

Coffee Break

INDUSTRIAL SESSION – 4:15 PM



- **Laurence COMBE** (4:15PM) – **upcoming Title.**
Imaging for Microscopy to single-molecule localization
Advanced Accelerator Applications, a Novartis Company, Marseille, FRANCE

GALA Evening – Docks de Marseille (7-11 pm)

Visit of Anise Museum

Visit of Marseille in augmented reality

Cocktail & Awards

MULTIMODAL Imaging

30th of September

Registration & Coffee Break - 8:30 AM



PLENARY SESSION – 10:00 AM

Benoit LARRAT

MRI and PET imaging for the assessment of ultrasound aided drug delivery to the brain.

CEA, Paris, FRANCE

EXHIBITION Hall, POSTER SESSION – 11 AM

**Industrial Partners / E-Scopics, Deepcolorimaging
Academic Partners / SATT-SE, CISAM, Pepite Provence, Institut Carnot Star**

Lunch Break

INDUSTRIAL SESSION – 2:00 PM



- **Claude COHEN-BACRIE** (2 PM) – **Upcoming title**
Innovative ultrasound tools
E-SCOPICS, Aix-en-Provence, FRANCE
- **Alexis VRIGNAUD** (2:30 PM) - **High resolution photoacoustic tomography – Optical ultrasound detection opens new perspectives.**
Photoacoustic tomography
DEEPCOLOR SAS, Nantes, FRANCE.

RESEARCH SESSION – 3:15 PM



- **Pierre FAU** (3:15PM) - **MRLinac the complex combination.**
Institut Paoli-Calmettes, Marseille, FRANCE

Coffee Break

CONCLUSION & CLOSING TALK

Stefan ENOCH, Directeur de l'institut Marseille Imaging