

## 09-nov

	09h45		<b>Official opening</b>  <b>Khalifa Djemal, William Puech, Jean-Yves Didier, University Paris-Saclay / University of Montpellier</b>
	10h00	<b>Tutorial T1</b>	<b>Image quality assessment and saliency modelling</b> <i>Liu Hantao, Cardiff University, UK</i> <b>Chairs</b> <b>Aladine Chetouani, University of Orléans</b>
	11h00		<b>Coffee break</b>
	11h30	<b>Tutorial T2</b>	<b>Computer-Aided Diagnosis on Medical Images : Application to neurodegenerative diseases classification tasks</b> <i>Mouloud Adel, Aix-Marseille University, France</i> <b>Chairs</b> <b>Caroline Petitjean, University of Rouen</b>
	12h30		<b>Lunch</b>
<b>Special Session 1</b>	14h00	<b>Title</b>	<b>Advances in variational image processing</b>
		<b>Chairs</b>	<b>Noémie Debroux, Marie-Ange Lebre, Odysée Merveille, Antoine Vacavant, University of Clermont Auvergne / CREATIS Lyon</b>
<b>Invited speaker 1</b>	14h05	<b>Title</b>	<b>Unfolding proximal algorithms</b> <i>Jean-Christophe Pesquet, University of Paris Saclay, France</i>
	15h00	<b>P29</b>	<b>Analysis of the weighted Van der Waals-Cahn-Hilliard model for image segmentation</b> <i>Carole Le Guyader, Zoé Lambert, Caroline Petitjean</i>
	15h20	<b>P28</b>	<b>A Time-Dependent Joint Segmentation and Registration Model: Applications to Longitudinal Registration of Hepatic DCE-MRI Sequences</b> <i>Noémie Debroux, Carole Le Guyader, Guillaume Lienemann, Benoît Magnin, Antoine Vacavant</i>
	15h40	<b>P13</b>	<b>Frame-based reflectance estimation from multispectral images for weed identification in varying illumination conditions</b> <i>Anis Amziane, Olivier Losson, Benjamin Mathon, Aurélien Dumenil, Ludovic Macaire</i>
	16h00	<b>P58</b>	<b>Semantic Segmentation Post-processing with Colorized Pairwise Potentials and Deep Edges</b> <i>Rémi Ratajczak, Carlos F Crispim-Junior, Béatrice Fervers, Elodie Faure, Laure Tougne</i>
	16h20		<b>Coffee break</b>
	16h40	<b>Tutorial T3</b>	<b>Deep learning for medical imaging analysis (and beyond): latest advances and recipes for success</b> <i>Oge Marques, Florida Atlantic Universitys,USA</i> <b>Chairs</b> <b>Rachid Jennane, University of Orléans</b>

## 10-nov

<b>Oral Session 1</b>		<b>Title</b>	<b>Machine Learning Methods for Images and Video Analysis</b>
		<b>Chairs</b>	<b>Antoine Vacavant, University of Clermont Auvergne</b>
	08h40	<b>P16</b>	<b>Sorting cells from fluorescent markers organization in confocal microscopy: 3D versus 2D images</b>  <i>Ali Ahmad, Carole Frindel, David ROUSSEAU</i>

- 09h00 **P18** **Mixtures of Variational Autoencoders**  
*Fei Ye, Adrian Bors*
- 09h20 **P22** **Instance segmentation in fisheye images**  
*Rémi Dufour, Cyril Meurie, Clément Strauss, Olivier Lézoray*
- 09h40 **P24** **Literature Review of Deep Learning Models for Liver Vessels Reconstruction**  
*Abir Affane, Marie-Ange LEBRE, Utkarsh Mittal, Antoine Vacavant*
- 10h00 **P33** **Video Seals Recognition using Transfer Learning of Convolutional Neural Network**  
*Ayoub Karine, Thibault Napoléon, jean-yves mulot, yves auffret*

10h20 **Coffee break**

**Oral Session 2**

**Title** **Machine Learning Methods and applications**  
**Chairs** **Adrian Bors, University of York**

- 10h40 **P38** **Efficient Deep Face Alignment with Explicit Statistical Shape Models in Convolutional Neural Networks**  
*Marcin Kopaczka, Justus Shock, Paul kruse, Dorit Merhof*
- 11h00 **P50** **CenterlineNet: Automatic Coronary Artery Centerline Extraction for Computed Tomographic Angiographic Images Using Convolutional Neural Network Architectures**  
*Saifeddine RJIBA, Thierry Urruty, Pascal Bourdon, Christine Fernandez-Maloigne, Roger Delepaul, Luc-Philippe CHRISTIAENS, Remy Guillevin*
- 11h20 **P19** **Lifelong learning of interpretable image representations**  
*Fei Ye, Adrian Bors*
- 11h40 **P56** **A Study on the Impact of Training Data in CNN-Based Super-Resolution for low Bitrate End-To-End Video Coding**  
*Fatemeh NASIRI, Wassim Hamidouche, Luce Morin, Nicolas Dhollande, Gilda Cochorel*
- 12h00 **P59** **Deep-learning based segmentation of challenging myelin sheaths**  
*Raphael JG Caillon, Thomas Le Couédic, Florence Rossant, Hélène Urien, Anne Joutel, Rikesh Rajani*

12h30 **Lunch**

**Invited Speaker 2**

14h00 **Title** **Adversarial attacks on image classifiers**  
*Andrea CAVALLARO, Queen Mary University, UK*  
**Chairs** **William Puech, University of Montpellier**

**Oral Session 3**

**Title** **Image and video processing**  
**Chairs** **Dionysis Goularas, University of Yedetipe**

- 15h00 **P25** **An original MRI-based method to quantify the Diffuse Low-Grade Glioma brain infiltration**  
*Cyril Brzenczek, Sophie Mézières, Yann Gaudeau, Marie Blonski, Fabien Rech, Tiphaine Obara, Luc Taillandier, Jean-Marie Moureaux*
- 15h20 **P6** **Localization and Correction of Corrupted Pixel Blocks in Noisy Encrypted Images**  
*Pauline Puteaux, William Puech*
- 15h40 **P75** **Image glossiness from curvelet features using SVM-based classification**  
*Harsh Gandhi, P. Shabari Nath, Rajlaxmi Chouhan*
- 16h00 **P68** **Efficient Implementation of Regional Mutual Information for the Registration of Road Images**  
*Johann Lembach, Ronny Stricker, Horst-Michael Groß*

16h20 **Coffee break**

**Oral Session 4**

**Title** **Pattern recognition and computer vision**  
**Chairs** **Mourad Oussalah, University of Oulu**

16h40 **P60** **4D Light Field Disparity Map Estimation using Krawtchouk Polynomials**  
*Rui Lourenco, Daniel Rivero-Castillo, Lucas Thomaz, Pedro Amado Assuncao, Sergio Faria, Luís Távora*

17h00 **P42** **Reconciling Image Captioning and User's Comments for Urban Tourism**  
*Yazid Bounab, Mourad Oussalah, Ahlam Ferdenache*

17h20 **P64** **Single-Modal Video Analysis of Personality Traits using Low-Level Visual Features**  
*Daniel Helm, Martin Kampel*

17h40 **P65** **Image-based Classification of Honeybees**  
*Stefan Schurischuster, Martin Kampel*

**11-nov**

**Special Session 2**

09h25 **Title** **Advanced Computational Intelligence in Medical and Biomedical Imaging**  
**Chairs** **Yu Guo, Su Ruan, University of Rouen**

09h30 **P27** **Data augmentation for multi-organ detection in medical images**  
*Maryam Hammami, Denis Friboulet, razmig kechichian*

09h50 **P37** **Investigating CoordConv for Fully and Weakly Supervised Medical Image Segmentation**  
*Rosana El Jurdi, Thomas Dargent, Caroline Petitjean, Paul Honeine*

10h10 **P39** **SegTHOR: Segmentation of Thoracic Organs at Risk in CT images**  
*Zoé Lambert, Caroline Petitjean, Bernard Dubray, Su Ruan*

10h30 **Coffee break**

11h00 **P55** **Assigning a new glioma grade label groundtruth for the BraTS dataset using radiologic criteria**  
*Paul Dequidt, Pascal Bourdon, Carole Guillevin, Benoit Gianelli, Claire Boutet, Jean-Philippe Cottier, Jean-Noël Vallée, Christine Fernandez-Maloigne, Remy Guillevin*

11h20 **P61** **A 3D deep learning approach based on Shape Prior for automatic segmentation of myocardial diseases**  
*Fabrice MERIAUDEAU, Khawla BRAHIM, Alain Lalande, Arnaud Boucher, Anis Sakly, Abdul Qayyum*

11h40 **P66** **Deep learning based automatic detection of uninformative images in pulmonary optical endomicroscopy**  
*Thibaud Brochet, Jérôme Lapuyade-Lahorgue, Sébastien Bougleux, Mathieu Salaun, Su Ruan*

12h30 **Lunch**

**Invited Speaker 3**

14h00 **Title** **Video Recognition from Large and Weakly-Labeled Image Datasets**  
*Eric GRANGER, University of Québec, Canada*  
**Chairs** **Mouloud Adel, Aix-Marseille University**

**Oral Session 5**

**Title** **Segmentation and video analysis based deep Learning approaches**  
**Chairs** **Jenny Benois-Pineau, University of Bordeaux**

15h00 **P71** **Deep Recognition-based Character Segmentation in Handwritten Syriac Manuscripts**  
*Rita Fermanian, Charles Yaacoub, Adib Akl, Petra Bilane*

15h20 **P69** **Deep Unrolled Network for Video Super-Resolution**  
*Benjamin Naoto Chiche, Arnaud Woiselle, Joana Frontera Pons, Jean-Luc Starck*

15h40	P70	<b>Robust and discriminating face recognition system based on a neural network and correlation techniques</b> <i>Ehsan Sedgh Gooya, Ayman AL FALOU</i>
16h00	P74	<b>Features Understanding in 3D CNNs for Actions Recognition in Video</b> <i>Kazi Ahmed Asif Fuad, Pierre-Etienne Martin, Romain Giot, Romain Bourqui, Jenny Benois-Pineau, Akka Zemmari</i>
16h20		<b>Coffee break</b>
<b>Oral Session 6</b>	<b>Title</b>	<b>Deep Learning applications</b>
	<b>Chairs</b>	<b>Caroline Petitjean, University of Rouen</b>
16h40	P62	<b>Fully automatic CNN-based segmentation of retinal bifurcations in 2D adaptive optics ophthalmoscopy images</b> <i>Iyed Trimeche, Florence Rossant, Isabelle Bloch, Michel Paques</i>
17h00	P8	<b>Symmetric adversarial poisoning against deep learning</b> <i>Adrien CHAN-HON-TONG</i>
17h20	P57	<b>Detection of asian hornet's nest on drone acquired FLIR and color images using deep learning methods</b> <i>Tooba Shams, Pascal Desbarats</i>
17h40	P47	<b>Impact of Deep Learning and Smartphone Technologies in Dermatology: Automated Diagnosis</b> <i>Evgin Göçeri</i>
18h00	P10	<b>Cloud Cover Nowcasting with Deep Learning</b> <i>Léa Berthomier, Bruno Pradel</i>

**12-nov**

<b>Oral Session 7</b>	<b>Title</b>	<b>Pattern recognition and computer vision</b>
	<b>Chairs</b>	<b>Rostom Kachouri, ESIEE</b>
08h40	P52	<b>Semantic image segmentation based on spatial relationships and inexact graph matching</b> <i>Jérémy Chopin, Jean-Baptiste Fasquel, Harold Mouchère, Rozenn Dahyot, Isabelle Bloch</i>
09h00	P35	<b>Fall Detection using Body Geometry in Video Sequences</b> <i>Djamila Romaiassa Beddiar, Mourad Oussalah, Brahim Nini, Yazid Bounab</i>
09h20	P15	<b>Unsupervised segmentation of stents corrupted by artifacts in medical X-ray images</b> <i>Hugo Gangloff, Emmanuel Monfrini, Christophe Collet, Nabil Chakfe</i>
09h40	P53	<b>Predicting Brain Degeneration with a Multimodal Siamese Neural Network</b> <i>Cecilia Ostertag, Marie Beurton-Aimar, Muriel Visani, Thierry Urruty, Karell Bertet</i>
10h00	P48	<b>Combined Datasets For Breast Cancer Grading Based On Multi-CNN Architectures</b> <i>Adel Abdelli, Rachida Saouli, Khalifa Djemal, Imane Youkana</i>
10h20		<b>Coffee break</b>
<b>Oral Session 8</b>	<b>Title</b>	<b>Image description and localization</b>
	<b>Chairs</b>	<b>Jean-Yves Didier, University of Paris-Saclay</b>
10h40	P54	<b>Taming the curse of dimensionality for perturbed token identification</b> <i>Olga Assainova, Jérémy Rouot, Ehsan Sedgh-Gooya</i>

- 11h00 **P67** **Cognitive tasks modelization and description in VR environment for Alzheimer's disease state identification**  
*Florian Maronnat, Margaux Seguin, Khalifa Djemal*
- 11h20 **P41** **Impact of Quality Of Images On Users Behavior On Social Media**  
*Yazid Bounab, Mourad Oussalah, Djamila Romaissa Beddiar*
- 11h40 **P49** **Robust Image Wafer Inspection**  
*Massimiliano Barone*
- 12h00 **P51** **Study of the influence of Age: Use of Sample Entropy and CEEMDAN on Navigation Data Acquired from a Bike Simulator**  
*Antoine JAMIN, Guillaume DUVAL, Cédric ANNWEILER, Pierre ABRAHAM, Anne HUMEAU-HEURTIER*
- 12h20 **P17** **Improved centerline tracking for new descriptors of atherosclerotic aortas**  
*Hugo Gangloff, Emmanuel Monfrini, Mohamed Zied Ghariani, Mickaël Ohana, Christophe Collet, Nabil Chakfe*
- 12h40 **Closing**