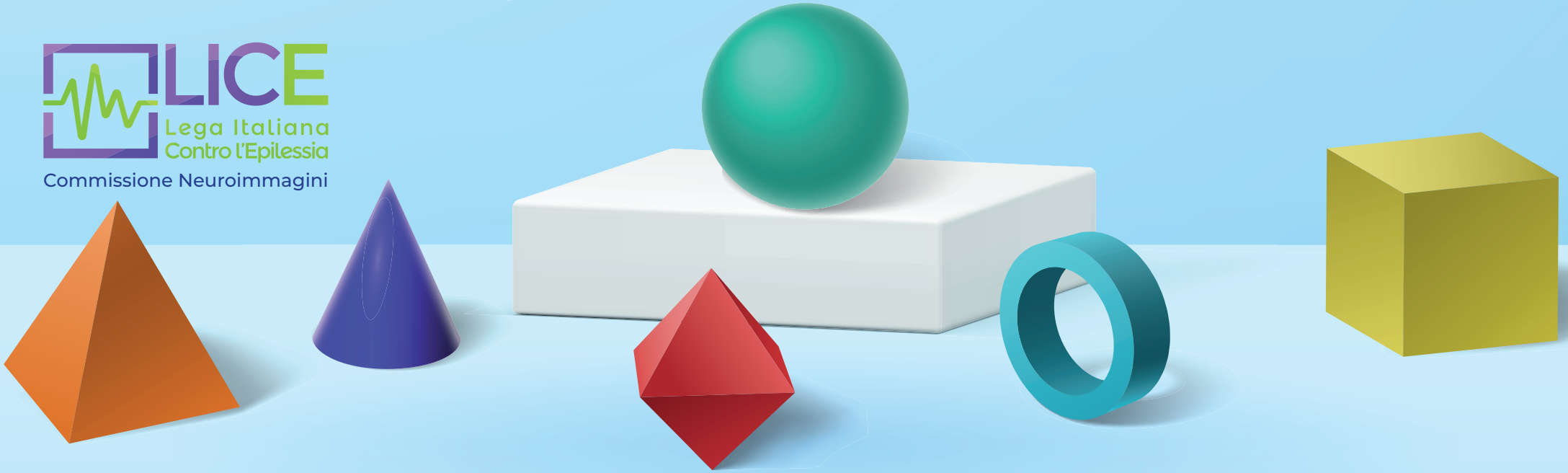
ADVANCED IMAGING IN EPILEPSY

SWANe Training Course (4th Edition)

Rome - Domus Australia

12th - 14th December 2025

LICE
Lega Italiana Contro l'Epilessia
Commissione Neuroimmagini



Under the Patronage of

ESNR EUROPEAN SOCIETY OF NEURORADIOLOGY
DIAGNOSTIC AND INTERVENTIONAL

ILAE International League Against Epilepsy

AINR Associazione Italiana di Neuroradiologia Diagnostica e Interventistica

Course Abstract

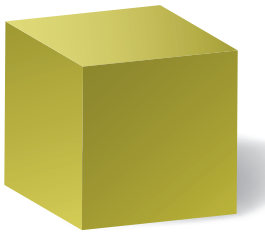
This hands-on course, now in its fourth edition, will be held for the first time in English and is open to an international audience. Designed for neurologists, pediatric neurologists, neuroradiologists, neurosurgeons, and imaging specialists, the course offers an in-depth introduction to SWANe (Standardized Workflow for Advanced NeuroImaging in Epilepsy), a dedicated software developed by the Neuroimaging Commission of the Italian League Against Epilepsy (LICE).

Participants will explore the role of advanced multimodal neuroimaging in the diagnosis and surgical planning of focal epilepsy, including rare and complex cases. The program combines expert lectures with structured hands-on training, enabling attendees to work directly with real clinical cases using SWANe and tools such as 3D Slicer.

Key topics include the interpretation of high-resolution MRI, PET, and other imaging modalities, the integration of electro-clinical data, and the construction of multimodal presurgical planning scenes. This immersive and practical format makes the course an ideal opportunity for clinicians and researchers looking to deepen their expertise in epilepsy imaging and to connect with an international network of experts in the field.

Scientific Committee and Course Tutors

Carmen Barba
Francesco Cardinale
Fabio Martino Doniselli
Giulia Melinda Furlanis
Laura Mirandola
Martina Revay
Domenico Tortora
Anna Elisabetta Vaudano



Course objectives

Now in its fourth edition, this course on advanced neuroimaging in epilepsy is being offered for the first time in English and is open to an international audience. Organized by the Neuroimaging Commission of LICE (the Italian League Against Epilepsy), the course is centered around the use of SWANe – Standardized Workflow for Advanced NeuroImaging in Epilepsy – a dedicated software developed to support the identification and analysis of the epileptogenic zone and network in patients with focal epilepsy, including rare and complex forms. Through a combination of theoretical lectures and intensive hands-on sessions, participants will learn how to apply multimodal neuroimaging techniques using SWANe in real clinical scenarios, including surgical planning.

The course objectives include:

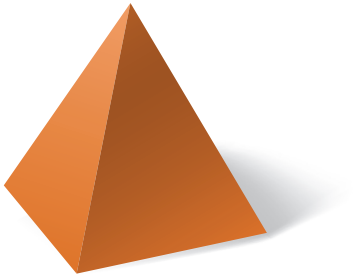
- Learning how to use the SWANe software
- Understanding the significance and indications of advanced neuroimaging techniques
- Gaining hands-on experience with advanced neuroimaging in epilepsy through practical sessions
- Learning to interpret multimodal imaging to delineate the epileptogenic zone in focal epilepsies and build a surgical planning scene

Course venue

Domus Australia
Via Cernaia, 14B - 00185 Rome
Ph. +39 06 488 8781
https://www.domusaustralia.org/

Organizing Secretariat

PTS Meetings & Events
Via Volturno, 2c - 00185 Rome
Ph. +39 06 85355590
E-mail: enzo.cunsolo@ptsroma.it



Registration

Open to a maximum of 35 participants, including neurologists, pediatric neurologists, pediatricians, neurosurgeons, neuroradiologists, and radiologists. Places will be assigned on a first-come, first-served basis within each category. Unfilled slots at the end of the registration period will be reassigned, with priority given to LICE and AINR members.

Fees

LICE, ESNR and AINR Members ■

Euro 305,00
(Euro 250,00 + VAT 22%)

- Neurologists
- Pediatric Neurologists
- Pediatricians
- Neurosurgeons
- Neuroradiologists
- Radiologists
- Residents

■ *Members are those who, at the time of registration, are already enrolled in LICE, ESNR or AITN and are up to date with membership dues, including the current year's fee*

Non Members

Euro 366,00
(Euro 300,00 + VAT 22%)

- Neurologists
- Pediatric Neurologists
- Pediatricians
- Neurosurgeons
- Neuroradiologists
- Radiologists
- Residents

Click **HERE** to register or scan the QR Code

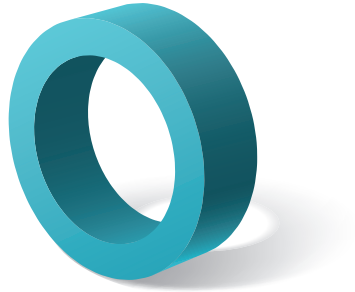
ECM/CME

No ECM/CME accreditation is provided.

The registration fee includes:
- Educational activities
- Coffee breaks and working lunches, as per the program
- Certificate of attendance

The registration fee does not include:
- Travel and transfers to/from the train station and/or airport.
- Hotel accommodation
- Anything not expressly mentioned under "The registration fee includes"

Preferred qualifications:
Expertise in programming and in using platforms such as FSL, MRIcron, FreeSurfer, and 3D Slicer



PROGRAM

Friday, December 12th

14:00 – 16:30 Software setup and installation check for practical sessions

16:30 – 16:45 Course introduction & group assignment
A.E. Vaudano - D. Tortora

16:45 – 18:30 The Role of Neuroimaging in Patients with Focal Epilepsy

16:45 – 17:15 The epileptologist's perspective
C. Barba

17:20 - 17:50 The neurosurgeon's perspective
G.M. Furlanis

17:55 - 18:25 The neuroradiologist's perspective
F.M. Doniselli

18:25 – 18:30 Discussion

Saturday, December 13th

08:30 – 09:00 SWANe: What it can analyze and how to run it
D. Tortora

09:00 – 09:30 3D Slicer: How to visualize the analyzed data
F. Cardinale

09:30 – 10:30 **Hands-On Session I**
I found an epileptogenic lesion! How do I use multimodal imaging techniques?
Plenary session with all Tutors

10:30 – 11:00 Coffee break

11:00 – 13:00 **Hands-On Session II**
Another clearly visible epileptogenic lesion! Let's explore advanced techniques together
Group 1 - working in separate groups; 30 minutes group discussion included

13:00 – 14:00 Lunch break

14:00 – 16:00 **Hands-On Session III**
It looks like there might be an epileptogenic lesion, but I'm not sure. Can advanced analyses help?
Group II - working in separate groups; 30 minutes group discussion included

16:00 – 16:30 Coffee break

16:30 – 18:30 **Hands-On Session IV**
I can't find any epileptogenic lesion. Can advanced analyses help me identify one?
Group III - working in separate groups; 30 minutes group discussion included

Sunday, December 14th

08:30 – 10:00 Pre-surgical planning: role of DTI and fMRI
F.M. Doniselli - M. Revay

10:00 – 10:30 Coffee break

10:30 – 13:00 Hands-On Session V
The epileptogenic lesion needs to be operated on. Let's prepare the pre-surgical scene
Group IV - working in separate groups; 30 minutes group discussion included

13:00 – 14:00 Lunch break

14:00 – 14:30 When Advanced Images lie: tackling false positives in epilepsy diagnosis
L. Mirandola - A.E. Vaudano

14:30 – 15:00 Course Evaluation & Closing Session

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With the unconditional support of