



SEMINAR BY DR. MD. VALENTINA BARO
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April 14th, 2022 - 3:00 p.m.

Sala Seminari VIMM - Via Orus 2, Padova

Title of the seminar: Advanced neuroimaging in neurosurgery

Abstract: The clinical assessment of brain pathologies has been increasingly dependent on advanced magnetic resonance imaging (MRI) techniques in order to infer lesion pathophysiological characteristics, such as hemodynamics, metabolism, and microstructure. Advanced techniques in computed tomography, MRI and positron-emission tomography have further improved the visualisation and localisation of brain pathologies especially in neuro-oncology, providing target definition for various therapeutic modalities. Additional refinements of newer imaging methods, such as MR Spectroscopy, functional MRI, diffusion MRI and diffusion tensor imaging, have allowed a more detailed and accurate definition of tumour features and the relation with eloquent brain tissue. Nonetheless, these imaging methods have acquired a pivotal role in presurgical planning for brain surgery.