



# CONFERENCES



## RADIOMICS Toolbox: Workflow and Quality Management

*IRCCS Monding Foundation/ University of Pavia, Italy  
23-25 June 2021*

### Introduction:

Radiomics and artificial intelligence (AI) are currently revolutionising the way we look at big data and our approach in the understanding of diseases, connecting imaging metrics, biological biomarkers, genetics and clinical scores.

**Radiomics** emerged as a translational field of research with the aim of extracting mineable data from clinical images, with initial specific attention to oncologic imaging, but soon expanded its application to all spheres of imaging. Beyond the initial focus on conventional imaging sequences, the technological advances are such that this field needs to further expand itself to embrace all kinds of quantitative imaging mapping solutions.

### AI:

The application of AI further sustains the evolution of radiomics and promises to boost its applications, progressively proving itself to be crucial in the interplay between radiology and other medical and scientific disciplines in supporting the understanding of pathological mechanisms of diseases as well as potentially predicting clinical outcomes.

### Criticality:

The availability of such a large amount of data poses several issues and highlights the need to improve our abilities in building and organising adequate datasets, extracting features and signatures as well as optimising their analysis and interpretation by correctly setting up a robust “pipeline”. Another critical issue in modern radiomics/AI based medical research is paving the way to translating these results into clinical practice.

### Solution:

The aim of this three-day School, coordinated by the University of Pavia, is to respond to the needs of a robust pipeline with quality control in order to translate research evidence into clinical practice. In this arduous attempt, the school will provide the attendants a complete “toolbox” to operate in this field. The technical steps will be explored in detail, ranging from data collection, data organisation, analysis, feature extraction and data presentation, both from a technical/operational perspective as well as from a medical/interpretative one. Special attention will be paid not only to the pipeline but also to quality assurance in order to ease an adequate translation of evidence into clinical practice.

For more information visit <http://www.studio-congressi.com/>