



COLLOQUIA DI DOTTORATO, A.A. 2021/2022

Dipartimento di Fisica, A101
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The potential of AI in advancing medical imaging

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Artificial Intelligence (AI) has been implemented in the field of Medical Imaging since the eighties. The great emphasis in recent years on Deep Learning methods is triggering a new revolution in this field, potentially leading to improve disease diagnosis and patient prognosis. Some specific challenges related to methodological aspects need to be addressed before the AI potential can be fully exploited in Medical Imaging applications. While AI models require large amounts of labelled data during the training phase, it is very difficult to collect sufficiently large samples of properly annotated medical images. Thus, efficient and robust strategies to learn from limited examples have to be set up. An additional crucial challenge to face in medical applications of AI is to make these solutions understandable by humans. Dedicated Explainable AI (XAI) solutions are urgently needed in the field of medical applications to make clinicians and patients trust AI-based solutions and to enable their adoption in clinical workflows.

The seminar is in presence up to the maximum occupancy of A101 room.