

General Meeting next_AIM

Report of Contributions

Contribution ID: 1

Type: **not specified**

Synthetic images generation from small datasets

Monday, 13 February 2023 14:30 (20 minutes)

Presenters: REMONDINI, Daniel (Istituto Nazionale di Fisica Nucleare); DI MECO, Lorenzo

Session Classification: WP1 - Methodological approaches to handle limited datasets

Contribution ID: 2

Type: **not specified**

Low-dimensional signatures from high-dimensional data: the DNetPRO algorithm

Monday, 13 February 2023 14:50 (20 minutes)

Presenter: CURTI, Nico

Session Classification: WP1 - Methodological approaches to handle limited datasets

Contribution ID: 3

Type: **not specified**

How to deal the small data issue in artificial intelligence within medical image classification: a systematic review

Monday, 13 February 2023 15:10 (20 minutes)

Presenter: UBALDI, Leonardo (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP1 - Methodological approaches to handle limited datasets

Contribution ID: 4

Type: **not specified**

A bootstrap method to model small datasets with survival outcome

Monday, 13 February 2023 15:30 (20 minutes)

Presenter: BALLANTE, Elena

Session Classification: WP1 - Methodological approaches to handle limited datasets

Contribution ID: 5

Type: **not specified**

Established XAI techniques

Monday, 13 February 2023 16:30 (30 minutes)

Presenter: FANIA, Alessandro

Session Classification: WP2 - Explainable techniques for biomedical data

Contribution ID: 6

Type: **not specified**

A holistic and analytical approach to assess Trustworthy AI: Z-inspection® project

Monday, 13 February 2023 17:00 (30 minutes)

Presenter: LIZZI, Francesca (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP2 - Explainable techniques for biomedical data

Contribution ID: 7

Type: **not specified**

Effectiveness of biological inspired neural network models in learning and patterns memorization

Monday, 13 February 2023 17:30 (30 minutes)

Presenter: CURTI, Nico

Session Classification: WP2 - Explainable techniques for biomedical data

Contribution ID: 8

Type: **not specified**

A python framework for classification of DBT slices through Deep Learning (WP3.T1)

Tuesday, 14 February 2023 08:50 (25 minutes)

Presenter: PATERNÒ, Gianfranco (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 9

Type: **not specified**

An explainable unified approach for mass detection and classification in DBT (WP3.T1)

Tuesday, 14 February 2023 09:15 (25 minutes)

Presenter: BERTI, Andrea

Session Classification: WP3 - Applications to real data

Contribution ID: **10**

Type: **not specified**

Use of GradCAM map for mass localization in DBT (WP3.T1)

Tuesday, 14 February 2023 09:40 (25 minutes)

Presenter: RICCIARDI, Roberta (Università degli studi di Napoli “Federico II”)

Session Classification: WP3 - Applications to real data

Contribution ID: 11

Type: **not specified**

Super-resolution for DBT imaging (WP3.T2)

Tuesday, 14 February 2023 10:05 (25 minutes)

Presenters: METTIVIER, Giovanni (Istituto Nazionale di Fisica Nucleare); CURTI, Nico

Session Classification: WP3 - Applications to real data

Contribution ID: 12

Type: **not specified**

Radiomics in prostate cancer (WP3.T3)

Tuesday, 14 February 2023 11:00 (25 minutes)

Presenter: MARRALE, Maurizio (University of Palermo)

Session Classification: WP3 - Applications to real data

Contribution ID: 13

Type: **not specified**

Deep learning models for targeting of tc-MRgFUS for essential tremor (WP3.T4)

Tuesday, 14 February 2023 11:25 (25 minutes)

Presenter: ROMEO, M

Session Classification: WP3 - Applications to real data

Contribution ID: 14

Type: **not specified**

Multi-algorithm approach for real-life clinical applications (WP3.T5)

Tuesday, 14 February 2023 11:50 (25 minutes)

Presenter: SENSI, Francesco

Session Classification: WP3 - Applications to real data

Contribution ID: 15

Type: **not specified**

Nuclear Medicine Neuroimaging Quantification (WP3.T5)

Tuesday, 14 February 2023 12:15 (25 minutes)

Presenter: PEIRA, Enrico (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 17

Type: **not specified**

Project overview

Monday, 13 February 2023 14:00 (30 minutes)

Presenter: RETICO, Alessandra (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 18

Type: **not specified**

COVID-19 severity prediction based on radiomics features obtained by exploiting the LungQuant segmentation output (WP3.T7)

Tuesday, 14 February 2023 16:30 (25 minutes)

Presenter: SCAPICCHIO, Camilla (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 19

Type: **not specified**

Radiomics and ML for biomarker prediction in Facioscapulohumeral dystrophy (WP3.T8)

Tuesday, 14 February 2023 16:55 (25 minutes)

Presenter: BARZAGHI, Leonardo

Session Classification: WP3 - Applications to real data

Contribution ID: 20

Type: **not specified**

Radiomics and ML-segmentation on lung tumor, the Blue Sky project (WP3.T8)

Tuesday, 14 February 2023 17:20 (25 minutes)

Presenters: BRERO, Francesca (Istituto Nazionale di Fisica Nucleare); POSTUMA, Ian (Istituto Nazionale di Fisica Nucleare); CABINI, Raffaella (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 21

Type: **not specified**

A software for extracting quantitative metrics and radiomic features in CT images of the lung: development of a practical tool and clinical applications (WP3.T8)

Tuesday, 14 February 2023 17:45 (25 minutes)

Presenter: BERTA, Luca

Session Classification: WP3 - Applications to real data

Contribution ID: 22

Type: **not specified**

Soft tissue sarcoma: transfer learning and fine-tuning for prediction of distant metastasis based on multimodal imaging (WP3.T10)

Tuesday, 14 February 2023 18:10 (25 minutes)

Presenter: PIFFER, Stefano (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 23

Type: **not specified**

High pathological grade prediction in prostate cancer patients undergoing 18F-PSMA PET/CT using matRadiomics (WP3.T5)

Tuesday, 14 February 2023 14:00 (25 minutes)

Presenter: PASINI, Giovanni

Session Classification: WP3 - Applications to real data

Contribution ID: 24

Type: **not specified**

Correct approach to multicentric data harmonization (WP3.T6)

Tuesday, 14 February 2023 14:25 (25 minutes)

Presenter: OLIVA, Piernicola (University of Sassari and INFN Cagliari)

Session Classification: WP3 - Applications to real data

Contribution ID: 25

Type: **not specified**

Brain Connectivity with rs-EEG (WP3.T6)

Tuesday, 14 February 2023 14:50 (25 minutes)

Presenter: CUNA, F

Session Classification: WP3 - Applications to real data

Contribution ID: 26

Type: **not specified**

ML applications for MRI, ECG, and Plethysmography (WP3.T6 + WP3.T11 + WP3.T12)

Tuesday, 14 February 2023 15:15 (25 minutes)

Presenter: ZUCCHETTA, Alberto (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 27

Type: **not specified**

Track detection on CR39 for 10B cell uptake measurements (WP3.T9)

Tuesday, 14 February 2023 15:40 (25 minutes)

Presenter: POSTUMA, Ian (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP3 - Applications to real data

Contribution ID: 28

Type: **not specified**

The DOLab_research environment

Wednesday, 15 February 2023 08:50 (20 minutes)

Presenter: BOSCO, Paolo (INFN - Pisa)

Session Classification: WP5 - Exploitation of research results and communication

Contribution ID: 29

Type: **not specified**

Working with clinicians: the DORIAN Tech. experience

Wednesday, 15 February 2023 09:10 (20 minutes)

Presenter: GIANERI, R

Session Classification: WP5 - Exploitation of research results and communication

Contribution ID: **30**

Type: **not specified**

R4I Deeplook

Wednesday, 15 February 2023 09:30 (20 minutes)

Presenter: METTIVIER, Giovanni (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP5 - Exploitation of research results and communication

Contribution ID: **31**

Type: **not specified**

Collaboration with AIFM

Wednesday, 15 February 2023 09:50 (20 minutes)

Presenters: TALAMONTI, Cinzia (Istituto Nazionale di Fisica Nucleare); FANTACCI, Maria Evelina (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP5 - Exploitation of research results and communication

Contribution ID: 32

Type: **not specified**

Regolamentare l'IA: tra etica e normativa

Wednesday, 15 February 2023 10:10 (20 minutes)

Presenter: GOZZI, G

Session Classification: WP5 - Exploitation of research results and communication

Contribution ID: 33

Type: **not specified**

Update on WP4 status: available resources and SW repository

Wednesday, 15 February 2023 11:00 (30 minutes)

Presenter: LIZZI, Francesca (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP4 - Computing resources and SW repository organization

Contribution ID: 34

Type: **not specified**

AI-MIGHT and computing resources

Wednesday, 15 February 2023 11:30 (20 minutes)

Presenter: FATEMI, Setareh (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP4 - Computing resources and SW repository organization

Contribution ID: 35

Type: **not specified**

Management of a software project: copyright, licensing, git platform

Wednesday, 15 February 2023 11:50 (30 minutes)

Presenter: GIACOMINI, Francesco (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP4 - Computing resources and SW repository organization

Contribution ID: **36**

Type: **not specified**

Discussion

Wednesday, 15 February 2023 12:20 (25 minutes)

Session Classification: WP4 - Computing resources and SW repository organization

Contribution ID: 37

Type: **not specified**

Discussion and Closing Remarks

Wednesday, 15 February 2023 15:30 (30 minutes)

Presenter: RETICO, Alessandra (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 38

Type: **not specified**

Hands-on: tutorial on next_AIM repository

Wednesday, 15 February 2023 14:00 (1h 30m)

Presenters: LIZZI, Francesca (Istituto Nazionale di Fisica Nucleare); POSTUMA, Ian (Istituto Nazionale di Fisica Nucleare)

Session Classification: WP4 - Computing resources and SW repository organization