



AIM General Meeting

Agenda - 15 e 16 Ottobre, 2020

Meeting Telematico

<https://agenda.infn.it/event/24238/>

Zoom link 15/10 Meeting ID: 956 9129 4163

<https://cern.zoom.us/j/95691294163?pwd=dFNsb0piUGdVZkVpV3QyRW5zNjNLQT09>

Zoom link 16/10 Meeting ID: 948 4423 6494

<https://cern.zoom.us/j/94844236494?pwd=NEpUZDJTZm11L1ljdBHNcUp1anduUT09>

Giovedì 15 Ottobre mattina (9:00-12:00)

9:00 - 9:15 Intro (A. Retico)

9:15 - 10:30 Session I - AIM1, Data Harmonization - chair M.E. Fantacci

- **AIM1.T1** Multi-site data harmonization in MRI (*PI, BA, BO*)
 - Standardization strategies for MRI features: summary of PI, BA and BO analyses and future goals, A. Retico, PI (15' + 5' discussion)
- **AIM1.T2** Multi-site data harmonization in mammography (*PI, CA*)
 - Harmonization of mammographic data, Francesca Lizzi, PI (15' + 5' discussion)
- (new) **AIM1.T3** Multi-site data harmonization in PET (*GE*)
 - Quality vs. quantity: disentangling clinics and scanners in heterogeneous multicentric dataset, A. Chincarini, GE (15' + 5')
- Discussion on similarities and differences across modalities (15' discussion)

10:30 - 10:45 coffee break

10:45 - 12:00 Session II - AIM2, Quantification - chairs M. Marrale, A. Retico

- **AIM2.T1** Quantification models in Nuclear Medicine (*GE*)
 - Nuclear Medicine techniques and analysis in neurology. Expertise overview in Genoa, A. Chincarini, GE (10' + 5' discussion).
- **AIM2.T2** Quantification models in MRI (*BO, PV*):
 - DL models for image reconstruction in MRF and QSM, D. Remondini, BO (10' + 5' discussion)
 - Standardization and harmonization of MRI relaxation time mapping techniques, Davide Cicolari, PV (10' + 5' discussion)

- (new) **AIM2.T3** Tumour contouring with ML techniques (*PV*)
 - Proposed strategy for tumour contouring with ML techniques, Ian Postuma, PV (5' + 5' discussion)
- (new) **AIM2.T4** - Quantification of muscle deterioration in MR (*PV*)
 - Proposed strategy for quantification of muscle deterioration in MR, Francesca Brero, PV (5' + 5' discussion)
- Discussion on optimal strategies for quantification in different imaging modalities (10' discussion)

Venerdì 16 Ottobre mattina (9:00-13:00)

9:00 - 10:30 Session III - AIM3, Predictive Models - chairs S. Tangaro, D. Remondini

- **AIM3.T1** Predictive models for Radiation Therapy treatments (*FI, PI, CT*)
 - Update from FI, PI, CT analyses, Leonardo Ubaldi, PI (10' + 5')
- **AIM3.T2** Predictive models for mammography CESM, (new) DBT, BCT and MRI (*PI, CA, BA, new NA*)
 - Proposed strategy for DBT and BCT analyses, Giovanni Mettievier, NA (5' + 5')
- **AIM3.T3** Predictive models for transcranial-MR-guided Focused Ultrasound Surgery (*CT, BO*)
 - Analysis update, Maurizio Marrale, CT (10' + 5')
- **AIM3.T4** Predictive models for Systems Medicine (*BO, GE*)
 - Predictive models for Systems Medicine, D. Remondini, BO (10' + 5')
 - Association between Structural Connectivity and Generalized Cognitive Spectrum in Alzheimer's Disease, A. Lombardi, BA (10'+5')
- **AIM3.T5** Predictive models for tumor classification (*BO, CT*)
 - Analysis update, Maurizio Marrale, CT (5' + 5')
- Discussion on suitable strategies to set up robust and reproducible analysis pipelines (10' discussion)

10:30 - 10:45 coffee break

10:45 - 12:15 Session IV - (new) AIM-Covid19-WG - chair C. Talamonti, M.E. Fantacci

- *Processing lung CTs of subjects with COVID-19 pneumonia*, Alessandra Retico, PI (20' + 10' discussion)
- *Unsupervised Lung Segmentation for Radiomics Studies: Preliminary Results*, Alessandro Stefano, LNS (20' + 10' discussion)
- *Potential contribution of medical imaging in the management of the health emergency*, Alberto Torresin, Ospedale Niguarda, MI (20' + 10' discussion)

12:15 - 12:45 Wrap up, focus on key objectives for 2021

- How to meet the milestones agreed with referees for 2021