WP7: Transfer of Knowledge

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Muography

- Secondments done & planning
- IAEA Technical Meeting on muography
- Muography training day proposal

- General training proposal

Radia Sia, Chiara Vignoli, Michael Tytgat - Annual General Meeting, Nov. 6-7, 2019

Secondments related to muography

Secondments done so far

- UCL, Belgium to TECNO IN, Italy (separate reports in this meeting)
  Sophie Wuyckens: May 12-26; July 8-28; Sept.30 - Oct.12, 2019
  Samip Basnet: Sep.30 - Oct.8, 2019

Secondments to be discussed/confirmed in near future

- UGent, Belgium to Italy (TECNO IN ?)
  Amrutha Samalan (new PhD student) & *Michael Tytgat* for training on software, data analysis, detector operation …

IAEA Technical Meeting

- IAEA Technical Meeting on *Non-Destructive Testing using Muon Radiography: Present Status and Emerging Applications*, Vienna, 9-12 Sept. 2019

- Attendance by "invitation"; ~30 participants (researchers, industry, international organizations), including several INTENSE collaborators (Italy, Belgium)

- Overview talks + dedicated working groups:
  1. Status of technology (detectors, software, data analysis …)
  2. Current and future applications
  3. Opportunities for further development and utilization

IAEA Technical Meeting

- Outcome of the meeting:

  - ➢ Need for a common forum for muography community; (bi-)annual muography workshop ?
  - ➢ IAEA Coordinated Research Project ?
  - ➢ **IAEA Technical Document**
    - public document on state-of-the-art of muography
    - to be published in Spring/Summer 2020
    - INTENSE collaborators among main editors
    - could serve as reference document

Muography Training Day

Task T7.3: "1-day training on detector techniques and data analysis techniques applied to muography in coincidence with the INTENSE annual General Meetings"

Initial suggestion to trigger discussion

- Propose a training session of 1 or more days on muography for all involved groups (WP5 groups or all ?)
- Location: Naples, i.e. near INFN-INGV laboratory @ Vesuvius ?
- Topics
  - General muography overview
  - Detector technologies
  - Simulation & data analysis
  - Combination with gravimetric and geological data (INGV, TECNOIN)
  - Site visit to Vesuvius ?
- Ideally this training should happen asap, maybe Spring 2020 (i.e. not connected to the annual general meeting) ?

General Training Proposal

Task T7.5: "Organize special training courses on the side of the General Meetings. Training sessions will be devoted to specific advanced topics from research development in fundamental physics or from echnological developments from companies."

Suggestion to invite B12 Consulting colleagues
- for either a seminar (short) or hands-on training session (long) on advanced data analysis and machine learning techniques
- i.e. of common interest to all partners
- could be done alongside our next general meeting in 2020 ?