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Joint ICTP-IAEA Advanced Workshop on Portable X-Ray Spectrometry Techniques for Characterization of Valuable Archaeological/Art Objects | (smr 3298)

Monday 03 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (08:30-17:30)

time	title	presenter
08:30	Administrative and Financial formalities	
09:00	Official opening: Objectives of the Workshop, organizational arrangements	ZENNARO, M. PADILLA ALVAREZ, R. TUNIZ, C. SCANDOLO, S.
09:45	Self-introduction of the participants (2 minutes each)	
10:30	Coffee break	
10:45	Lecture 1: The support of IAEA to characterization of cultural heritage objects.	PADILLA ALVAREZ, R.
11:30	Lecture 2: ICTP projects in support of cultural heritage studies	TUNIZ, C.
12:15	Lunch break	
14:00	Lecture 3: Fundamentals of X-ray spectrometry techniques and examples of application	PADILLA ALVAREZ, R.
14:45	Lecture 4: Instrumentation available for portable/transportable x-ray spectrometry techniques	MIGLIORI, A.
15:30	Coffee break	
15:45	Visit to Multidisciplinary Laboratory: Introduction to instruments available at NSIL and MLAB	CRESPO, M.L. MIGLIORI, A.

Tuesday 04 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-17:30)

time	title	presenter
09:00	Lecture 5: Handheld and portable X-ray Fluorescence spectrometers: Conceptual design, Qualitative analysis, advantages and limitations	KARYDAS, A.
09:45	Lecture 6: Inspection of extremely valuable objects: Hand-held XRF analysis of a 16th century Mexican feather headdress	PADILLA ALVAREZ, R. KARYDAS, A.
10:30	Coffee break	
10:45	Lecture 7: XRF analysis of pigments on marble, easel and mural paintings	KARYDAS, A.
12:15	Lunch break	
14:00	Practical Demonstration 1: Use of handheld XRF analyser for pigment identification	KARYDAS, A. MIGLIORI, A.
15:30	Coffee break	
15:45	Practical Demonstration 1: Use of handheld XRF analyser for pigment identification	KARYDAS, A.

notitle - Leonardo Building - Terrace (19:00-21:00)

time	title	presenter
19:00	Welcome reception	

Wednesday 05 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-17:30)

time	title	presenter
09:00	Lecture 8: XRF analysis of ancient and historic metal objects: Examples of applications	KARYDAS, A.
09:45	Lecture 9: XRF analysis of archaeological glass: Qualitative and quantitative Insights and applications	KARYDAS, A.
10:30	Coffee break	
10:45	Lecture 10: Compositional classification of archaeological ceramics: Principle and examples of application	PADILLA ALVAREZ, R.
12:15	Lunch break	
14:00	Practical Demonstration 2: Use of handheld XRF analyser for inspection of metal objects	KARYDAS, A. MIGLIORI, A.
15:30	Coffee break	
15:45	Practical Demonstration 3: Use of handheld XRF analyser for inspection of ceramic objects	KARYDAS, A. PADILLA ALVAREZ, R.

Thursday 06 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-17:30)

time	title	presenter
09:00	Practical Demonstration 4: Interpretation of XRF spectra The IAEA-QXAS	PADILLA ALVAREZ, R.
10:30	Coffee break	
10:45	Practical Demonstration 5: Calibration options for quantitative available in the IAEA-QXAS	PADILLA ALVAREZ, R.
12:15	Lunch break	
14:00	Lecture 11: X-ray imaging. Principles and instrument design	DREOSSI, D.
14:45	Practical Demonstration 6: x-ray imaging by micro CT: Main steps in measurements, image processing and interpretation	DREOSSI, D.
15:30	Coffee break	
15:45	Lecture 12: Whose bones are they? Hominin fossils as cultural heritage and biological archive of humankind	TUNIZ, C.

Friday 07 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-17:30)

time	title	presenter
09:00	Lecture 13: Synchrotron techniques for characterization of CH objects	ZANINI, F.
09:45	Lecture 14: Portable XRF-XRD for characterization of valuable objects	GIANONCELLI, A.
10:30	Coffee break	
10:45	Lecture 15: Examples of application studies conducted at IAEA XSpe end-station	SIBILIA, M.
11:30	Lecture 16: Examples of application studies conducted at ELETTRA synchrotron	MANCINI, L.
12:15	Lunch break	
14:00	Lecture 17: Design of transportable XRF units: Considerations and options	CRESPO, M.L. PADILLA ALVAREZ, R.
14:45	Practical Demonstration 7: X-Ray Spectroscopy based on COTS CMOS image sensors	PEREZ, M.
15:30	Coffee break	
15:45	Reserved for compilation of notes and discussions	

Monday 10 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-16:30)

time	title	presenter
09:00	Lecture 18: Full Field XRF: Principle, design and practical consideration	ROMANO, P.
09:45	Lecture 19: Examples of application of FFXRF to characterize CH objects	ROMANO, P. CALIRI, C.
10:30	Coffee break	
10:45	Lecture 19 (cont.): Examples of application of FFXRF to characterize CH objects	ROMANO, P. CALIRI, C.
11:30	Practical Demonstration 8: Assembling and operation of FFXRF	MIGLIORI, A. ROMANO, P.
12:15	Lunch break	
14:00	Practical Demonstration 8: Assembling and operation of FFXRF	MIGLIORI, A. ROMANO, P.
14:45	Practical Demonstration 8: Measurement of metallic objects by FFXRF	MIGLIORI, A. ROMANO, P.
15:30	Coffee break	
15:45	Practical Demonstration 8: Measurement of ceramic objects by FFXRF	MIGLIORI, A. ROMANO, P.

Tuesday 11 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-16:30)

time	title	presenter
09:00	Lecture 20: Design of XRF scanners for inspection of paintings and creation of elemental maps.	ROMANO, P.
09:45	Lecture 21: Examples of application of XRF scanner for characterization of paintings	ROMANO, P. CALIRI, C.
10:30	Group photo	
10:35	Coffee break	
10:45	Lecture 21: Examples of application of XRF scanner for characterization of paintings (cont.)	ROMANO, P. CALIRI, C.
11:30	Lecture 21: Examples of application of XRF scanner for characterization of paintings (cont.)	CALIRI, C. ROMANO, P.

Wednesday 12 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-16:30)

time	title	presenter
09:00	Practical Demonstration 10: Creation of elemental maps	ROMANO, P. CALIRI, C.
09:45	Practical Demonstration 10: Interpretation of elemental maps	ROMANO, P.
10:30	Coffee break	
10:45	Lecture 22: Micro XRF transportable instruments: Principle, design and practical consideration	GRIESSER, M.
11:30	Lecture 23: Characterization of paintings and manuscripts/charters using micro-XRF	GRIESSER, M.
12:15	Lunch break	
14:00	Lecture 24: Characterization of coins using micro-XRF	GRIESSER, M.
14:45	Lecture 25: Characterization of historic texts using micro-XRF	GRIESSER, M.
15:30	Coffee break	
15:45	Lecture 26: Characterization of glass and enamel using micro-XRF	MIGLIORI, A. GRIESSER, M.

Thursday 13 June 2019

notitle - MLab (09:00-16:30)

time	title	presenter
09:00	Practical Demonstration 12: Measurement of coins using micro-XRF	MIGLIORI, A. GRIESSER, M.
09:45	Practical Demonstration 12: Measurement of pigments/dyes/inks in manuscripts and charters using micro-XRF	MIGLIORI, A. GRIESSER, M.
10:30	Coffee break	
10:45	Practical Demonstration 12: Measurement of ceramic glazes using micro-XRF	MIGLIORI, A. GRIESSER, M.
11:30	Practical Demonstration 12: Measurement of glass and enamel using micro-XRF	MIGLIORI, A. GRIESSER, M.
12:15	Lunch break	
14:00	Practical Demonstration 12: Measurement of paintings using micro-XRF	MIGLIORI, A. GRIESSER, M.
15:30	Coffee break	
15:45	Practical Demonstration 12: Measurement of paintings using micro-XRF	MIGLIORI, A. GRIESSER, M.

Friday 14 June 2019

notitle - Giambiagi Lecture Hall (AGH) 3-7 June

Kastler Lecture Hall (AGH) 10-14 June (09:00-12:15)

time	title	presenter
09:00	Round Table: Summary discussions on capabilities of x-ray techniques and identification of potential applications in participating laboratories	
10:30	Coffee break	
10:45	Open discussion: Feedback from participants	
11:30	Conclusions and official closure	