Oral program

6th International Conference on Innovation in Art Research and Technology

4–7 June 2024 – Oslo, Norway

Oral program

Tuesday June 4

09:00–10:00
Registration

10:00–10:20
Opening

Aud Tønnesen, Ingrid Louise Flatval, Lavinia de Ferri

10:20–11:00

Keynote Lecture 1 – Dante Abate

Advanced and Intelligent Aerial and Space-Born Techniques to Safeguard Archaeological Sites Against Natural and Man-Made Threats

11:00–11:30
Coffee break and Poster session 1

Oral session 1 – Applications of Artificial Intelligence, 3D documentation and Virtual Reality

Chair: Dante Abate

11:30–11:50

Tracing forgeries of paintings with attribution markers and artificial intelligence

***Barbara Łydżba-Kopczyńska**, Janusz Szwabiński, Magdalena Iwanicka & Piotr Targowski*

11:50–12:10

Fusing 3D imaging modalities for the internal and external investigation of multi-material museum objects

***Francien Bossema**, Paul J.C. van Laar, Kimberly Meechan, Daniel O'Flynn, Joanne Dyer, Tristan van Leeuwen, Suzan Meijer, Erma Hermens & Joost Batenburg*

12:10–12:30

A study of enamels: conservation and history of global transfer of technology

*Rebecca Mitchell, **Haida Liang**, Sotiria Kogou, Luke Butler, C. S. Cheung, Patrick S Atkinson, Florence Liggins, Lucia Burgio, Valentina Risdonne, Capucine Korenberg, Andrew Meek*

12:30–13:30

Lunch

Oral session 2 – Applications of Computed Tomography technology

Chair: Susan Braovac

13:30–13:50

Unlocking van Goyen´s panels: a comprehensive study integrating dendrochronology, x-ray CT, and database comparison for technical art historical paintings insights

*Alexandra Lauw, **Sara Valadas**, Maria Mayer, Antonio Candeias & Vanessa Antunes*

13:50–13:10

Offering bearer statuettes from the Minhotep's Tomb: technical comparison between three Ancient Egyptian funerary wooden sculptures

***Nicole Manfredda**, Paola Buscaglia, Paolo Del Vesco, Francesca Tensella, Luisa Vigorelli, Laura Guidorzi, Alessandro Re, Tommaso Poli, Chiara Ricci, Tiziana Cavaleri, Matilde Borla & Alessandro Lo Giudice*

14:10–14.30

A scan of worms

***Sofie Dierickx**, Siska Genbrugge, Marieke van Es & Jan Van den Bulcke*

14:30–15:00

Coffee break & Poster session 1

Oral session 3 – Data management

Chair: Espen Uleberg

15:00–15:20

Addressing Contemporary Challenges in Art and Cultural Institutions: Exploring the Role of Blockchain Technology in the Preservation of Digital Cultural Heritage of Asia

***Phillip Pon**, Joyce Li, Puay Peng Ho, Harald Kraemer, Soon-Hwa Oh, Kiu-wai Chu*

15:20–15:40

M3R – a Multimodal Representation for Storage and Open-Access Dissemination of Data of Historical Manuscripts

*Simon Brenner, Hans Clausen, Gerlinde Schneider, Ivana Dobcheva, Wilfried Vetter, **Manfred Schreiner**, Heinz Miklas & Robert Sablatnig*

15:40–16:00

From the excavations to the lab: Cutting-edge Strategies in Archiving archaeometric research at the Austrian Archaeological Institute/OeAW

***Vasiliki Anevlavi**, Karl Burkhart, Pamela Fragnoli, Sabine Ladstätter, W. Prochaska., Helmut Schwaiger & Micheline Welte.*

16:00–16:20

HERIe – digital preventive conservation platform

*T. Berger, S. Bujok, M. Strojecki, M. Soboń, S. Antropov, R. Kozłowski, E. Hagan, D. Thickett & **Łucasz Bratasz***

17:30

Welcome cocktail at the Historical Museum

Wednesday, June 5

Oral session 4 – Case studies

Chair: Peter Vandenabeele

09:00–09:20

A Multi-Analytical Investigation on Darkening of Blue Pigments in Munch's Paintings

*Jin Strand Ferrer, **Beatrice Giorgia Boracchi**, Francesca Caterina Izzo, Irena Kralj Cigic, Ljiljana Puskar, Terje Syversen & Irina Crina Anca Sandu*

09:20–09:40

A multi-competence and multi-analytical approach to contrast fakes in art

***Armida Sodo**, Giuliana Calcani, Antonella Privitera & Marta Sardara*

09:40–10:00

Feathered objects: a Multi Analytical Study

***Madeline Meier**, Hortense de La Codre & Maria Kokkori*

10:00–10:20

MeV SIMS – an accelerator-based technique providing new insights into the characterization of ß-naphthol and triarylcarbonium colorants from the INTK Materials Collection

***Dubravka Jembrih-Simbürger**, Teodora Raicu, Matea Krmpotić, Zdravko Siketić, Katja Sterflinger & Iva Bogdanović Radović*

10:20–10:40

Exploring monitoring and mould cleaning options for paintings and painted surfaces: A case study of Andebu Church (ca. 1100), Norway

***Lena Porsmo Stoveland**, Johan Mattsson, Anne Apalnes Ørnhøi, Bjørg Agasøster & Mari Sand Austigard*

10:40–11:00

A dissemination experiment centered on the scientific analysis of a cat mummy

***Ronan Gaugne**, Théophane Nicolas, Jérémy Lacoche, Fabrice Guichard, Odile Hays & Valérie Gouranton*

11:00–11:30

Coffee break and Poster session 1

Oral session 5 – Neutron and Synchrotron light-based techniques

Chair: Hartmut Kutzke

11:30–11:50

Advances in Neutron Resonance Transmission Imaging for inhomogeneous material characterization in Heritage Science

***Giulia Marcucci**, Antonella Scherillo & Daniela Di Martino*

11:50–12:10

Neutron imaging of capillary water uptake in waste-based geopolymers for cultural heritage conservation

***Maria Cristina Caggiani**, Filomena Salvemini, Claudio Finocchiaro, Maura Fugazzotto, Roberta Occhipinti, Silvia Portale, Sabrina Zafarana, Germana Barone & Paolo Mazzoleni*

12:10–12:30

Deciphering the chemistry and nanostructure of artists' paints with mixed protein-oil binders

***Rafaella Georgiou**, Alexandre Dazzi, Jeremie Mathurin, Giulia Caroti, Silvia Pizzimenti, Celia Duce, Mathieu Thoury, Patrick Dietemann, Bergmann Uwe & Ilaria Bonaduce*

12:30–13:30

Lunch

Oral session 6 – New approaches for the study of textiles

Chair: Hana Lukesova

13:30–13:50

New insights on flax fiber durability through the study of ancient Egyptian textiles

***Camille Goudenhooft**, Alessia Melelli, Loren Morgillo, Sylvie Durand, Johnny Beaugrand, Raymond Wightman, Anita Quilès, Roberta Cortopassi, Darshil U. Shah, Frédéric Jamme & Alain Bourmaud*

13:50–13:10

Study of the degradation of ancient Egyptian fabrics through synchrotron radiation and cutting-edge techniques

*Alessia Melelli, Camille Goudenhooft, Sylvie Durand, Roberta Cortopassi, Johnny Beaugrand, Anita Quilès, **Alain Bourmaud**, Mario Scheel & Frédéric Jamme*

14:10–14.30

Metallic Thread Lace: Unveiling Manufacturing Techniques via Scientific Analysis of Historic Textiles

*Karolina Skóra, **Aldona Kopyciak**, Agnieszka Kwiatkowska, Julio M. del Hoyo-Meléndez*

14:30-17:00

Guided Tours (approximate duration)

Thursday, June 6

09:00–09:40

Keynote Lecture 2 – Michał Lukomski

Sustainable Management of Collection Environments

Oral session 7 – Preventive conservation

Chair: Łucasz Bratasz

09:40–10:00

How the impact of natural ventilation and air pressure affects climate control in Historic Museum Buildings

Roland Lindenbeck, Ida Bryn & ***Linn Solheim***

10:00–10:20

Analyzing Vibration Levels in Museum Collections

Eva Hartlieb*, Pascal Ziegler & Peter Eberhard*

10:20–10:40

Mapping visitor and music related vibrations in Estonian National Museum

Kristiina Piirisild & Mari Allik

10:40–11:00

Satellite images and risk management strategies for Cultural Heritage in natural and semi natural environment

Mónica Moreno, Rafael Barea, Rocío Ortiz, Luis Castro, Daniel Cagigas2, Pilar Ortiz,

11:00–11:30

Coffee break and Poster session 2

Oral session 8 – New approaches for conservation

Chair: Tine Frøysaker

11:30–11:50

Initial Exploration of Surface Attached Gels for Swelling Acrylic Coatings

Grace Hanrahan*, Bronwyn Ormsby & Charis Theodorakopoulos*

11:50–12:10

Development of an innovative method to stabilize the chemical reconversion of darkened lead white in wall paintings

Patrizia Moretti*, Giulia Russo, Francesca Piqué, Cristina Fragoso Corti, Letizia Monico & Mauro Matteini*

12:10–12:30

Solving Microbiological Infestation on Arctic Cultural Heritage

Hana Lukesova*, Camilla Celine Nordby*

12:30–13:30

Lunch

Oral session 9 – Archival and written documents

Chair: Ludovic Bellot-Gurlet

13:30–13:50

Archaeometric philology for the study of deteriorated and overlapping layers of ink: the colour-code writing system and afterlife of an early Qur'anic fragment

***Giuseppe Marotta**, Alba Fedeli & Claudia Colini*

13:50–13:10

Alf Bjercke's factory. Comparing ready-made paint and colour swatches with archived recipes from the first half of the 20th century

***Elena Platania**, Barbro Wedvik & Calin Steindal*

14:10–14.30

Tracing the author of an iconic Greek Enlightenment book by investigating its printing ink components with Infrared spectroscopy and X-ray fluorescence

***Stamatis C. Boyatzis**, Theodore Ganetsos, Panagiotis Paspaliaris & Vasileios Papadakis*

14:30–15:00

Coffee break & poster session 2

Oral session 10 – New methods for diagnostics

Chair: Danilo Bersani

15:00–15:20

The contribution of multiphoton microscopy to our knowledge of parchments

***Laurianne Robinet**, Giulia Galante, Sylvie Heu-Thao, Marie-Claire-Schanne Klein & Gaël Latour*

15:20–15:40

From rock to artefacts: investigating the provenance of lapis lazuli in antiquity with μ -PIXE and μ -IBIL

***Marta Magalini**, Laura Guidorzi, Alessandro Re & Alessandro Lo Giudice*

15:40–16:00

Analysis of organic residuals found within ceramic vessels using aptamers and immunofluorescence microscopy

***Janez Kosel**, Lea Legan & Polona Ropret*

16:00–16:20

Proteogenomic Insights from a Waterlogged Medieval Pelt from Tønsberg, Norway

***Enrico Greco**, Calin Steindal, Pia Edqvist, Sabina Licen, Pierluigi Barbieri, Anastasia Serena Gaetano, Stefano Fornasaro, Sabrina Semeraro, Alessandro Miani, Prisco Piscitelli, Alberto Pallavicini, Fiorella Florian, Licia Elvira Prestagiacomo, Caterina Gabriele & Marco Gaspari*

17:30 (meeting time)

Social dinner at Frognerseteren

Friday, June 7

09:00–09:40

Keynote Lecture 3 – Anna Vila

Building Bridges: Integrating Conservation and Conservation Science

Oral session 11 – New approaches to cleaning: 1st part

Chair: Angeliki Zisi

09:40–10:00

Assessment of greener solutions for the cleaning of historical metal heritage

***Arianna Passaretti**, Luana Cuvillier, Giorgia Sciutto, Emilio Cano, Blanca Ramírez Barat, Stephan von Reuss & Edith Joseph*

10:00–10:20

A Comparative Study of Confined Aqueous Cleaning Systems for Water-Sensitive Painted Wood

***Jessica Chasen**, Elizabeth Homberger & Laura Maccarelli*

10:20–10:40

Developing environmentally sustainable solutions for cleaning Edvard Munch's monumental Aula paintings: a materials science-driven multi-analytical methodology

***Martina Romani**, Mercedes Ortega, Francesco Caruso, Olivia Gómez-Laserna, Iratxe Zarandona, Jan Dariusz Cutajar, Tine Frøysaker, Erlantz Lizundia & Maite Maguregui*

10:40–11:00

Nonwoven electrospun mats and green solvents: progress in their development as new artwork restoration systems

***Francesca Ramacciotti**, Giorgia Sciutto, Arianna Menichetti, Burcu Keser, Maria Letizia Focarete, Rocco Mazzeo, Marco Montalti, Chiara Gualandi & Silvia Prati*

11:00–11:30

Coffee break and poster session 2

Oral session 12 – New approaches to cleaning: 2nd part

Chair: Calin Constantin Steindal

11:30–11:50

Investigation of non-contact cleaning typical unstable sensitive cultural heritage materials from fire-born soot using atomic oxygen generated with the radiofrequency cold plasma at atmospheric pressure

***Tomas Markevičius**, Nan Yang, Anton Nikiforov, Rino Morent, Ilaria Bonaduce, Nina Olsson, Kirill Shumikhin, Klaas Jan van der Berg, Catarina Pires, Marta Cremonesi, Geert Van der Snickt, Gianluca Pastorelli, Louise Cone, Sofie Wikkelsø Jensen, Ana Sobota, Michail Poupouzas, Francisco Mederos Henry, Michaela Florescu, Alison Norton, Josephine Bobeck, Yijia Song*

11:50–12:10

Study of the behaviour of pigments of different nature under laser irradiation: comparison between nanosecond and femtosecond domains

Laura Andrés-Herguedas, José Santiago Pozo-Antonio, Teresa Rivas Brea, ***Daniel Jiménez-Desmond*** *& Alberto Ramil*

12:10–12:30

Unveiling Radiance: An Analytical Exploration of Laser Cleaning Efficacy Evaluation in Contemporary Mural Restoration

Yezi Zhang*, Francesca Zenucchini, Chiara Ricci & Dominique Scalarone*

12:30–13:30

Lunch

Oral session 13 – New materials for conservation

Chair: Antonio Candeias

13:30–13:50

Learning from Romans: when Vitruvian recipes became the inspiration for new technologies

Neva M. E. Stucchi*, Giulia Franceschin, Cristina De Nardi, Andrea Vavasori & Arianna Traviglia*

13:50–13:10

The UNESCO site of Cefalù Cathedral (Sicily) as a pilot site for the application and study of innovative conservation interventions

Antonella Bertino*, Maria Cristina Caggiani, Maua Fugazzotto, Silvia Portale, S. Starinieri, Paolo Mazzoleni & Germana Barone*

14:10–14.30

Exploring Eco-Friendly Antimicrobial Solutions for Cultural Heritage Stone Conservation

Andrea Campostrini*, Agustí Sala-Luis, Maria del Pilar Bosch-Roig, Elena Ghedini, Michela Signoretto & Federica Menegazzo*

14:30–15:00

Coffee break & Poster session 2

Oral session 14 – Applications of Spectral Imaging Techniques

Chair: Sony George

15:00–15:20

Application of hyperspectral imaging to evaluate cleaning methods for corroded glass

Tiziana Lombardo*, Ulrike Rothenhaeusler, Deepshikha Sharma, Sony George & Katharina Schmidt-Ott*

15:20–15:40

Silver/dyes decoupling and colour restoration of autochromes using multispectral imaging

Irina-Mihaela Ciortan, Isabel Yoko Arteaga Kiyomoto, ***Giorgio Trumpy****, Jon Yngve Hardeberg, Catlin Langford, Lucia Burgio & Saptarshi Neil Sinha*

15:40–16:00

A combined study using MSI (Multi Spectral Imaging), HSI (Hyper Spectral Imaging) and chemical analysis to study pigments in ancient art

***Paola Fermo**, Chiara Andrea Lombardi, Vittoria Guglielmi, Andrea Bergomi, Mattia Borelli, Gianluca Carabelli, Valentina Verzoni, Mario Colella, Valeria Comite*

16:00–16:10

Closing remarks

Poster session 1 (4-5 June)

Number	Authors	Title
1	*O. Dudygina, **C.C. Steindal***	Challenging assumptions about the Sløkkefri drinking horn; a multidisciplinary exploration.
2	***R. Punis**, M. Veronese, M. Meneghetti, A. Zoleo*	Copper soaps formation in verdigris-linseed oil painting mixtures: a multi-spectroscopic characterization
3	***V. Pintus**, S. Garrappa, T. Raicu, I. Fazlic, M. Cotte, A.J. Baragona, D. Hradil, F. Szabo, K. Sterflinger*	A Comprehensive Study on Cadmium Soaps in Oil Painting Mock-ups
4	***K. Klemińska***	Synthetic binder identification without sampling? Results of preliminary studies with microscopic and spectroscopic methods
5	*J.E. Cavalcante, R.M.S.P. Borges, I.V.N.S. Franzi, A.G. Paula, R.A.F. Gomes, **D.F. Oliveira**, R.T. Lopes*	APPLICATION OF NON-DESTRUCTIVE TECHNIQUES TO EVALUATE THE IMAGE OF OUR LADY OF GOOD HEALTH
6	*A. Delle Foglie, **A.C. Felici***	A multi-analytical study on two International Gothic paintings.
7	***M. Franchi**, A. Ciccola, A. Nucara, A. Cedola*	Application of FTIR spetroscopy technique for studying Seals of the Santi Quattro Coronati Complex (Rome, Italy)"
8	***E. Serrat,** J. Becerra, A. Vila*	Non-invasive techniques applied to the study of pigments used by Joan Miró in his paintings on canvas
9	***E. Derzelle**, D. Strivay, H. Stassart, F. Vandepitte, C. Defeyt*	Discovery of a composition on the reverse of Train du Soir (1957) by Paul Delvaux.
10	***V. Risdonne**, L. Ledwina, L. Burgio*	The V&A portrait of Marie Antoinette by François-Hubert Drouais uncovered: materials and conservation
11	*E. Vermeersch, A. Rousaki, S. Lycke, S. Valadas, G.V. Nascimento, R. Oliveira, J. Mendes, J. Caetano, A. Candeias, **P. Vandenabeele***	Unraveling the mysteries of the 15th century masterpiece Saint Vincent Panels: A characterization with Raman Spectroscopy (in situ and micro)
12	***M. Wachowiak**, K. Santiago*	Paints from palettes – crucial starting point for the paintings research – the case of Jerzy Duda- Gracz (1941-2004)
13	***A. Vila**, F.C. Izzo, M. Herrero-Cortell, M. Picollo, L. Fuster-López*	Understanding physical-chemical degradation processes in Antonio Saura's oil paintings on canvas
14	***N. Worawannotai**, P. Tongying, S. Chan-Eam, N. Tepsuparungsikul, P. Limpachayaporn, S. Imkhiaw, T. Limpathompipop*	What do we learn from a mock painting: a case on X-ray fluorescence mapping and technical photography?
15	***S. Kunikata**, Y. Tsuchiya, K. Fukunaga*	Visualization of Partial Delamination of Wax-Resin Linings by Using Active Infrared Thermography and THz Time-Domain Imaging
16	***A.F. Abrantes**, A.F. Machado, S. Valadas, E. Murta, A. Candeias, R. Oliveira*	Re/discovering the guilding layers from the 15th century Funchal Cathedral: combined in-situ analysis by EDXRF with laboratory research
17	***I. M. Cortea**, L. Ghervase, L. Angheluță, L. Ratoiu, A. Pătrașcu, M. Dinu*	Detection, identification, and mapping of organic binders used in ancient wall paintings by combined non- and micro-invasive mobile spectroscopic techniques
18	***L.C. Ratoiu**, I.M. Cortea, L. Ghervase, L.M. Angheluță*	Layers of the past. Non-destructive investigations of the old wall paintings from Râmnicu-Valcea Episcopal Church, Romania

19	*N. Thalguter, S. Mindermann,* ***E. M. Angelin****, T. Danzl, C. Sessa*	Multi-modal non-destructive investigation of the wall paintings of the Magdalen Chapel of St. Emmeram, Regensburg. A methodology to address the material complexity of a palimpsest
20	*D. Bersani,* ***L. Fornasini****, S. Simeti, G. Rossetti, L. Bergamonti, S. Germinario, M. Potenza, A. Casoli*	A secret mural painting back to light into the crypt of the Cathedral of Parma (Italy): discoveries and mysteries hidden behind a wall
21	***G. Simonelli****, P. Mezzadri, G. Sidoti, L. Ruggiero, A. Calia, G. Quarta, F. Aramini*	New Perspectives for the inhibition of salt damages in mural paintings located in hypogea context: the case of Saint Augustine in the rupestrian church of San Pietro Barisano.
22	***C. Tartaglia****, A. Botteon, A. Sansonetti*	Insights into Leonardo da Vinci's *Monochrome* mural in the Sforza Castle of Milan. A non-invasive approach through model samples
23	***M. Guan****, J. Chang, Y. Chen, X. Li, Y. Wang, X. Kang, X. Hu, L. Qu, Z. Zhao*	In situ analysis method for discoloration of pigments and dyes in organic cultural relics based on microfading spectrometry
24	***I. Bijker****, I.C.A. Sandu, K. J. van den Berg, F. Vanmeert, K. Janssens, G. Van der Snickt*	Unveiling the chemical signatures of 19th-C and 20th-C lead white: HR-XRPD, MA-XRPD and SEM-EDS analysis of commercial paints
25	***I. Turkova****, M. Kotrlý*	TECHNIQUES OF ANALYSIS OF ART PIGMENTS
26	*L. Nodari, R. Costantini,* ***P. Tomasin****, L. Pensabene Buemi*	Gouache or not gouache? Inside the "opaque" definition of body colour paintings.
27	***M. Havlová****, V. Antušková, Radka Šefců*	High-performance liquid chromatography in an identification of colorants used in color layers of the paintings
28	***T. Raicu****, M. Krmpotić, Z. Siketić, I. Bogdanović Radović, K. Sterflinger, D. Jembrih-Simbürger*	Revealing the Synthetic Organic Colorants found in the Artists' Materials of The Renowned Austrian Caricaturist Erich Sokol (1933-2003) by MeV SIMS
29	***V. Pintus****, C. Cozzani, S. Miklin-Kniefacz, F. Caruso, C. Jordan, K. Sterflinger*	Blended Thitsiol/Urushiol Asian lacquers: an in-depth multi-analytical study
30	***I. Bilbao Zubiri****, E. Desplanques, H. Huysseune, E. Henrion, I. Bellot-Gurlet, A. Percot*	Identifying the dyes from Hauts de la Chapelle necropolis (13th century, France): a reflection on the challenges of transposing a characterisation methodology from model to archaeological textiles
31	*L. Nodari, P. Tomasin,* ***S. Legnaioli***	Discovering the ancient artisan heritage of the Moroccan carpet
32	***D. Tamburini****, J. Dyer, C. Cartwright, A. Simpson, Y.P. Luk, J. Liu, F. Zhao*	Reconstructing archaeological textiles from Dunhuang (China, 8th-10th century CE) – a focus on scientific analysis
33	***D. Tamburini****, L. Durand*	Early synthetic dyes: building molecular databases using historic sources of reference materials
34	***G. Roxas****, P. Garside, A. Quye*	Microfade Testing of Aniline Blue on Silk: An Investigation of Its Long-term Light-fading Characteristics
35	***L. Flo****, H. Kutzke, D. van der Meulen, P. Nabais*	The Poor Persons Purple. Investigations into a lichen Orcein dye from Norwegian domestic lichen.
36	***P. Banou****, S. Boyatzis, K. Choulis, A. Karabotsos, C. Theodorakopoulos, A. Alexopoulou*	Oil media on paper: investigating the morphological and chemical changes of linseed oil-impregnated paper mock-ups upon ageing.
37	***A.A. Freeman****, G. Albertson*	Insights into Fluorescent Paint Conservation: A Methodical Research Plan at LACMA (Los Angeles County Museum of Art)

38	***A. Bourmaud**, C. Goudenhooft, C. Alday Mamani, S. Durand, A. Melelli, T. Weitkamp, R. Cortopassi, F. Jamme, J. Beaugrand, A. Quilès, D. Beresford-Jones, D.U. Shah*	Bast from the Past: a crossed approach between ancient Egyptian and Andean civilization fibre processing
39	***M. Vermeulen**, S.P. Johns, G. de Polo, M. Rocha, M.J. Collins, L. Angelova, M. Roffet*	Assessing the Effect of Minimally Invasive Lipid Extraction on Parchment Integrity by Artificial Ageing and Integrated Analytical Techniques
40	*G. Latour, M. Schmeltz, **L. Robinet**, S. Heu-Thao, G. Galante, M. C. Schanne-Klein*	Non-invasive quantitative assessment of collagen degradation in parchments by polarization-resolved SHG microscopy
41	***Z. Haghighi**, M. Mackie, A.A. Ørnhøi, A. Ramsøe, T.M. Olstad, S. Armitage, C.S. Henshilwood, E. Cappellini*	An insight to take away: palaeoproteomics reveals the original binder and modern contaminations in distemper paints from Uvdal Stave Church, Norway
42	***M. Tzorakaki**, V. Kokla, A. Batrinou*	Mapping of deteriorations and biological factors using optical microscopy, multispectral techniques, SEM/EDS analysis and biological assessment on Greek photographic documents of the period 1938-1948.
43	***J. Gold**, F. Caruso, M. Romani, N.L.W. Streeton, M. Maguregui*	Lippmann interferential colour photography and the value of replicas for the understanding of the historic technology and its conservation
44	***P. Urbanová**, K. Kučíková, S. Klempová*	Monitoring degradation and assessing the condition of plastics using spectroscopic methods
45	***S. Klempova**, K. Vizárová, I. Lukačovič Vajová*	Lifetime prediction of cultural heritage objects made of plasticized poly (vinyl chloride)
46	***A. Piccolo**, P. Tomasin, L. Nodari, V. Pintus, A. Zoleo*	The degradation processes of celluloid under indoor conditions: preliminary results of a multi-analytical investigation
47	*J. Palmeirão, M. Nunes, A. Manhita, L. Piorro, M. Coutinho, E. Vieira, **T. Ferreira***	Study and conservation of a forgotten heritage. The case study of Saint Vincent Martyr simulacrum
48	***T. Ferreira**, J.C. Palmeirão, P. Monteiro, M. Nunes, F. Olival, A. Manhita, L. Piorro, A. Curto, E. Vieira*	The study of two impressive simulacra housed by Santa Casa da Misericórdia de Almada, Portugal
49	*M. Traoré, F. Paolino, **J.J. Łucejko***	Diving into the Ancient Secrets: Unraveling the Chemistry of Waterlogged Neolithic Wood Ecofacts
50	***M. Dinu**, L. Ghervase, I.M. Cortea, C.G. Alexandrescu*	Multi-analytical approach for characterisation of Roman age stone monuments
51	*M.Y. Spironello, M.C. Caggiani, **M. Fugazzotto**, G. Barone, P. Mazzoleni, M.C. Di Natale*	Historical and precious ecclesiastical artefacts in Sicily from the 12th to the 19th century: non-invasive gemmological analyses
52	*A. Coccato, **M.C. Caggiani**, G. Barone, F. Di Benedetto, P. Mazzoleni, M. Rigo, J. Prag*	Marble inscriptions from ancient Sicily: multi-analytical approach for provenance studies
53	*S. Martiniello, S. Raneri, **S. Legnaioli**, G. Lorenzetti, C. Sciuto, I. Bertelli, E. Rebechini, F. Nardella*	Making magic happen: composite gems from antiquity to medieval age. The art of counterfeiting.
54	***L. Ghervase**, V. Atanassova, A. Pirovska*	Influence of the intrinsic variability of Raman data on the outcome of PCA classification of ancient ceramics
55	***L. Saviane**, L. Fornasini, L. Mantovani, R. Villicich, D. Bersani*	Archaeometric study of ceramic findings from the site of the Roman villa in Fiumana (Italy)
56	***W.P. Polańska***	An analysis of clay samples from Liåker, Lunner municipality, Norway

57	***V. Guglielmi**, A. Santiglia, C.A. Lombardi, V. Comite, A. Bergomi, M. Borelli, A. L. Tassi, A.Pedrotti, S. Grimaldi, P. Fermo*	Prehistoric Cultural Changes in the Use of Fire from Foraging to the Earliest Farming Societies: An Interdisciplinary Archaeological and Multi-Analytical Study of Hearths at Riparo Mochi (Ventimiglia).
58	***M. Dinu**, L. Ghervase, A. Ratiu*	Multi-analytical approach for similitude analysis of metal Roman age findings
59	***L. Legan**, K. Retko, N. Nemeček, P. Ropret*	Non-invasive characterisation of tobacco pipes from the National Museum of Slovenia by vibrational spectroscopy

Poster session 2 (6-7 June)

Number	Authors	Title
60	***P. Ortiz**, A. Gómez-Morón, J.A. Palma, A. Gil, L. Toro, R. Ortiz*	XRF and Raman spectroscopy applied to gemstones study of an image of the 17th century.
61	***W.L. Ng**, H. Hu*	Design & Study of Cost-Effective Conservation of Watercolor Paper Art
62	***E. Guzikiewiczová**, K. Vizárová, S. Malečková, M. Králik*	The link between water and paper structure to enhance the efficiency of preservation processes
63	***D. Jiménez-Desmond**, J.S. Pozo-Antonio, A. Arizzi*	Searching for a suitable chromatic reintegration technique for outdoor exposed wall paintings
64	***Q. Wu**, H. Zhou, K. Gubanov, A. Passaretti, J. Gonzalez Frutos, C. Degrigny, L. Bertrand, M. Stols-Witlox, L. Brambilla, E. Joseph*	Development of silver test system with bio-based green aging methods and assessment with multi-analytical techniques
65	*M.R. Caruso, M. Romani, G. Cavallaro, O. Gómez-Laserna, **M. Maguregui**, G. Lazzara*	New sustainable treatment based on chitosan and halloysite nanotubes for the conservation of waterlogged archaeological wood.
66	***J.M.K. Wakefield**, C. Jones, H. Lukesova, S.E. Harding, H. Kutzke*	Archaeological woollen textiles in a fragile state: the potential of polysaccharide based consolidants
67	***S. Croci**, P. Buscaglia, A. Lo Giudice, P. Croveri, F. Di Iorio, F. Carosio, S. Grassini*	Study and development of an innovative consolidating material: the use of Paraloid B72 and Regalrez 1126 in combination with Laponite nanoparticles
68	***S. Murgia**, M.C. Aragoni, P. Meloni, E. Podda, A. Pintus, G. Carcangiu, D. Gimeno Torrente, M. Arca*	Innovative Phosphonate Consolidant: Pushing the Boundaries of Carbonate Stone Artifact Preservation
69	***A. Campostrini**, S. Manente, E. Ghedini, A. Di Michele, M. Signoretto, F. Menegazzo*	Preserving Venice's Heritage: An Innovative Safeguarding Approach Against Biodeterioration
70	***S. Portale**, M.G. Felter, A. Zisi, C.C. Steindal, L. de Ferri, G. Barone, P. Mazzoleni*	Feasibility study on the application of stone processing wastes for the conservation of archaeological ceramics: the Alkali Activation technology
71	***M. Fugazzotto**, G. Barone, P. Mazzoleni*	Geopolymer waste in a cradle to cradle process: new resources for a green conservation of cultural heritage
72	***O. Gómez Laserna**, I. Zarandona, M. Romani, F. Caruso, A. Nualart, A. Pitarch Martí, E. Lizundia, M. Maguregui*	Reusable aerogels based on functionalized cellulose nanocrystals for desalination of mural paintings
73	*I. Zarandona, O. Gómez-Laserna, M. Romani, J.D. Cutajar, T. Frøysaker, E. Lizundia, **M. Maguregui***	Cellulose nanofiber-based hydrogels as a sustainable alternative for soiling removal on canvas paintings

74	***E. Platania**, H. Blix, C. Spaarschuh, F. Caruso, M. Maguregui*	Exploring the action of fatty acids as green solvents for the removal of hydrophobic paint-layers
75	*S. Prati, **G. Di Cara**, F. Ramacciotti, B. Keser, G. Sciutto, L. Focarete, R. Mazzeo, F. Rosi, M. Paolantoni*	Green solvents and green strategies for the cleaning of street art: from molecular to macroscale investigations
76		
77	***E. Gillet**, V. Gauthier, S. Le Conte, C. Fritz, S. Serfaty, C. Andraud*	Perception and objectivation of cleaning of paintings
78	*A. Alexopoulou, E. Kiskira, **P. Banou**, K. Choulis, C. Theodorakopoulos*	Varnish removal on works of art on paper, a controversial matter. Recent reflections on the materials and methodology used for the treatment of the varnish layer.
79	***T. Markevičius**, A. Nikiforov, A. Sobota, M. Poupouzas, R. Morent, N. Yang, N. Olsson, Y. Song, K.J. van der Berg, G. van der Snickt, E. Trioška, S. Šakirzanovas, M. Viliūnas, I. Bonaduce, F. Mederos Henry, G. Pastorelli, D. Schrijvers, K. Luu*	New atomic oxygen technology for non-contact cleaning of cultural heritage materials from carbon-based contaminants: approached to generation pathway, characterization of effluent, and potential for greener cleaning methodology
80	***N. Yang**, M. Cremonesi, T. Markevicius, K. Leus, A. Nikiforov, F. Mederos-Henry, N. Ortega Saez, G. Van der Snickt*	Cleaning soot-contaminated silk textiles using plasma generated atomic oxygen, a new technological approach
81	***V. Ljubic Tobisch**, A. Artaker, W. Kautek*	Nature self-printing: multidisciplinary study bridging history of technology, experimental reconstruction, and artistic research
82	*C. Papitsi, **T. Ganetsos**, M. Katsantoni, C. Drosos, E. Symeonaki*	Evaluation of historical buildings using laser scanning - a case study of Funchal Cathedral in Madeira (Portugal)
83	***J. Seifert**, A. Lingle, T. Corton, A. Gyucha, P. Duffy, D. Riebe, W. Ridge, W. Parkinson*	Long-term Microclimate Monitoring using a Wireless Sensor System for the Conservation of Cultural Heritage Sites: The case of a Byzantine Hermitage in Thessaly, Greece
84	*A. Gil, A. Gómez-Morón, **G. Contreras**, R. Ortiz, P. Ortiz*	Pedological Rectification Offering Better Environmental Systems (PROBES): A Novel Method to Mitigating Deterioration of Earthen Archaeology
85	*I. Chulia, I. Catalán, **G. Contreras**, J. Maqueda, V. Bañuls, P. Ortiz, R. Ortiz*	Analysis of fire effects on cultural heritage
86	***I.M. Cortea***	Rescuing documents and books from earthquake, fires and floods. The drills in the Archive and librarian of Antequera (Malaga, Spain).
87	***W. Vetter**, S. Brenner, M. Schreiner*	Towards a FAIR data management in heritage science research: updates and progress on the INFRA-ART Spectral Library
88	***R.J. Oliveira**, S. Valadas, B. Caldeira, A. Candeias, F. Abrantes, A. Machado, E. Murta*	Hyperlyse – an open source intuitive user interface for viewing and analyzing hyperspectral images
89	*K. Brahos, A. Kantaros, **T. Ganetsos***	3D printing and 3D scanning: Preservation and protection of our cultural heritage

90	***M. Kresović**, D. Gigilashvili, J.Y. Hardeberg, T. Theoharis*	Virtual Reconstruction of Historical Textiles Using Graph Neural Networks
91	*R. Zain Fadillah, **D. Gigilashvili**, M. Havgar, M. Vedeler, J.Y. Hardeberg*	Automatic Thread Counting for Archaeological Textiles
92	***H. de La Codre**, M. Meier, H.Chopp, G. Verri, M. Kokkori*	Synergistic use of nondestructive analysis and deep learning for the study of Coptic textiles
93	***G. Li**, Y. Lei*	Computational simulation clarifies the coloration mechanism of ancient copper red glaze
94	***M. Kotrlý**, J. Boháčová, I. Turkova, J. Uher*	Robotic and non-destructive analysis of 3D objects - new possibilities
95	***A. Clay***	From Dream Machines to Scream Machines: An Exploration of Art, Perception, and Multisensory Experiences
96	***Y. Liu**, H. Hameeuw, M.N. Grison, B. Vandermeulen, A. Campagnolo, L. Watteeuw*	Performance assessment of portable light dome systems for surface characterization in heritage objects
97	*L. Gouteux, A.V. Padaki, C. ten Hove, D. van Lankvelt, H. Pellemans, H. Belt, L. Maxfield, M. van t Westeinde, A. Derksen, **A. Martins**, H. Diependaal, O. van Maanen, G. Harteveld*	Condition Assessment Scanner (CAS): a fast, high precision scanner to assess and monitor the topography of paintings
98	***F. Cappa**, C. Salvatore, I.M. Caniola, D. Jembrih-Simbuerger, K. Sterflinger, M. Pignitter, A. Zoleo, C. Hofmann*	Testing the approach applied for theoretical research of inks and parchment interaction.
99	*M. Alberico, B. Cipolletta, M. Rossi, G. Tortino, A. Carpentieri, L. Birolo, **A. Vergara***	The Vanvitelli's ink recipe
100	***S. Caterino**, I. Caniola, M. Pignitter, A. Zoleo, K. Sterflinger, F. Cappa*	A systematic and multi-analytical approach in the in-depth characterization of Iron-gall inks
101	***S. Sathiyamani**, O. Bonnerot, C. Colini*	Material Analysis of Papyri from the chancellery of Qurra b. Sharik
102	***M. Alberico**, B. Cipolletta, M. Rossi, G. Tortino, A. Carpentieri, A. Pollio, L. Birolo, A. Vergara*	Investigating degradation processes of documents written in the XVIII century
103	***K. Retko**, L. Legan, T. Knaflič, M. Huš, P. Ropret*	Spectroscopic analysis of mixtures of iron gall inks and logwood
104	*J. Cavalcante, R. Borges, I. Franzi, A. de Paula, R.Santos, O. Araújo, A. Machado, R. Leitão, M. Anjos, R. Freitas, R. Lopes, **D. Oliveira***	MicroXRF and MicroCT data fusion for the analysis of cultural heritage objects
105	***A. Grzechnik**, M. Wachowiak*	Computed Tomography 3D imaging as a non-invasive bookbinding evaluation tool for the restoration of the prayer book of Mary Stuart, Queen of Scots.

106	***R. With***	Under the surface: Condition assessment of archaeological metal objects by µCT scanning

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