

PERSONAL INFORMATION **Francesco Taccetti**



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Sex male | Nationality Italian

WORK EXPERIENCE

Francesco Taccetti is a physicist, presently employed as “technologist” by INFN, and works at LABEC, Florence, a laboratory devoted to applications of nuclear techniques to Cultural Heritage and environmental problems. Since about 2000, he has become one of the technological leaders at LABEC, where he followed the commissioning of the new tandem accelerator, and is now R&D coordinator for the Cultural Heritage branch, dealing with Ion Beam Analysis (IBA) and Accelerator Mass Spectrometry (AMS) measurements. Thanks to his experience in mechanical apparatuses, detectors, electronics and data acquisition systems, since 2006 he has been the principal investigator, for ten years, in experiments funded by the INFN Fifth National Committee (CSN5, Technological and Interdisciplinary Research) aimed at improving cutting-edge technologies in the field of Cultural Heritage for both applications of IBA and AMS (radiocarbon dating), besides the development of portable instrumentation like spectrometers for X Ray Fluorescence (XRF).

- Organisational / managerial
- Since September 2017 coordinator of the cultural heritage network of INFN (17 Institutes)
 - Since July 2015 INFN representative for E-RIHS (European Research Infrastructure for Heritage Science) appointment n. 17472 of the INFN presidency.
 - Since November 2014 INFN representative for IPERIONCH.it (italian joint research unit (CNR-INFN)) appointment n. 16859 of the INFN presidency.
 - Since June 2014 he is the INFN representative in the BoD of CoRICH (Consortium of Italian Research Infrastructure for Cultural Heritage) – prot. n. 2583/7.15/P of the INFN presidency.

Projects:

2017: INFN PI for the MACHINA-FISR project. The project, funded by MIUR with 1.77MEuro, aims at the construction of a portable particle accelerator in collaboration with CERN. (2017-2019)

2016: INFN PI for E-RIHS-PP (Preparatory Phase for the E-RIHS infrastructure (2017-2020))

2015: INFN PI for the FOTONART project (2016). The project funded by EnteCassa_Firenze aimed at developing an X-Ray Fluorescence scanner.

2014: national responsible for the CHNet network funded by INFN with 1.25 MEuro.

2013: national responsible for the INFN-Dating project funded by INFN.

2012: national responsible for the Cicas project; project funded by INFN devoted to introduce rare isotope measurement (Iodine and chlorine) at the tandem accelerator of INFN in Florence.

2009 - 2011: national responsible for the Ridagma project; project funded by INFN for improving the measurements with dating techniques (thermoluminescence and ¹⁴C)

2006 - 2008: national responsible for the Marasma project; project funded by INFN and devoted to improve the radiocarbon measurements.

ADDITIONAL INFORMATION Francesco Taccetti is author of around seventy papers on international refereed magazines, and numerous further papers or contributions in books.

Mother tongue(s) Italian

UNDERSTANDING

SPEAKING

WRITING

Francesco Taccetti: Curriculum Vitae

Other language(s)	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Jana Striova PhD: Curriculum Vitae

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jana.striova@ino.cnr.it

Professional experience

- from 15/4/2017-now **Head of coordination office IPERION CH H2020-INFRAIA-2014 G.A.654028**, Integrated Platform for the European Research Infrastructure on Cultural Heritage
- from 15/4/2017-now **Head of central management office E-RIHS PP (GA no. 739503)**, European Research Infrastructure on Heritage Science
- **Researcher at CNR** - innovative application of laser sources and THz spectroscopy for the diagnostics and conservation of CH, project management in frame of
 - **CHARISMA**, Cultural Heritage Advanced Research Infrastructures: Synergy for a Multidisciplinary approach to Conservation/Restoration H2020
 - **INSIDDE** (Integration of technological Solutions for Imaging, Detection, and Digitization), H2020
 - **IPERION-CH. GA 654028**
- **Postdoctoral Research Assistant** at Institute for the Conservation and Promotion of Cultural Heritage (ICVBC), Florence, IT in frame of regional project "TeCon@BC" innovative technologies for the conservation and valorization of CH and European FP7 project Charisma
- **Postdoctoral Research Assistant** at Institute for the Conservation and Promotion of Cultural Heritage (ICVBC), Florence, IT in frame of regional project "TeCon@BC" innovative technologies for the conservation and valorization of CH and European FP7 project Charisma

Invited talks:

2010 **Museum of Fine Arts, Boston, USA** "Innovative cleaning systems on natural and artificial stone substrates"

2014 **5th ALMA interdisciplinary conference**: Interpretation of fine art's analyses in diverse contexts, November 20-21, **Prague, Czech Republic** "From Leonardo to Raffaello: Insights by VIS-IR reflectography"

2014 **100° National Congress of Italian Society for Physics**, Pisa 22-26 settembre 2014, Italy "Riflettografia infrarossa al servizio di opere d'arte"

2015 **Scientific Exchange conference, Providence Rhode Island, USA** "Identification of Copper resinate in artworks: in a quest for the optimal Raman procedure"

2016 **The Great Scientific Exchange 2016 SciX conference, Minneapolis, USA, session Chemistry in Art and Archaeology** "Chemical mapping of pigments by visible and near-infrared multispectral imaging".

September 2016 N°. prot. INO 0004318 del 14/06/2016

REVIEWER OF INTERNATIONAL JOURNALS: Spectrochimica Acta A , Journal of Molecular Structure, Journal of Raman Spectroscopy, Applied Physics A, Construction and Building Materials, Microchemical J

Awards: Young Investigator Award - 3rd International Conference on the Application of Raman Spectroscopy in Art and Archaeology, Paris, 2005.

Best Poster Award – 6th International Conference on the Application of Raman Spectroscopy in Art and Archaeology, Parma, 2011.

Education

01/2006 – 02/2009	PhD , University of Florence, Italy , Doctoral Degree in Science for the Conservation of Cultural Heritage Research focus Er:YAG laser as a tool for the controlled cleaning of the mural paintings (monitoring of laser cleaning efficiency by means of various analytical techniques)
2005-2008	Marie-Curie fellow at European Laboratory for Non-linear spectroscopy in frame of ATHENA EU FP6 project, Research focus application of analytical techniques in the multidisciplinary field of the conservation of the cultural heritage (μ -Raman spectroscopy, infrared spectroscopy, size exclusion chromatography, scanning electron microscopy)
2005	Cambridge Certificate in Advanced English (CAE)
2003 – 2004	Master of Science , Kansas State University, USA , Analytical Chemistry, Research focus Synthesis of silicon based materials and their characterization
09/1996 – 06/2002	Master of Science , Institute of Chemical Technology, Czech Republic Chemical Technology of Monument Conservation
06/2000 – 08/2000	IAESTE Internship , Abo Akademi, Turku, Finland Occupation Laboratory of Polymer Chemistry, Research Assistant

Selected publications

A full list of publications is available

at: https://scholar.google.it/citations?hl=it&user=ZucWonUAAAAJ&view_op=list_works&sortby=pubdat

- 1) I. Wetzel, D. L.; **Striova, J.**; Higgins, D. A.; Collinson, M. M.: Synchrotron Infrared Microspectroscopy Reveals Localized Heterogeneities in an Organically Modified Silicate Film. *Vib Spectrosc*, 2004, 35(1-2), 153.
- 2) **Striova, J.**; Higgins, D.A., Collinson, M.M.: Phase Separation in Organically Modified Silicate Films as Probed by Phase-Imaging Atomic Force Microscopy. *Langmuir*, 2005, 21, 6137.
- 3) **Striova, J.**; Lofrumento, C.; Zoppi, A.; Castellucci, E. M.: Prehistoric Anasazi Ceramics studied by Micro-Raman Spectroscopy. *J Raman Spectrosc*, 2006, 37, 1139.
- 4) **Striova J.**, Coccolini G., Micheli S., Lofrumento C., Galeotti M., Cagnini A., Castellucci E.M.: Non-destructive and non-invasive analyses shed light on the realization technique of ancient polychrome prints. *Spectrochim Acta A*, 2009, 73, 539-545 doi:10.1016/j.saa.2008.10.031.
- 5) N.F.C. Mendes, I. Osticioli, **J. Striova**, A. Sansonetti, M. Becucci, E. Castellucci: Versatile Pulsed Laser Setup for Depth Profiling Analysis of Multilayered Samples in the Field of Cultural Heritage. *J Molec Struct*, 2009, 924-926: 420-426, doi:10.1016/j.molstruc.2009.01.047
- 6) A. Sansonetti, **J. Striova**, D. Biondelli, E. M. Castellucci: Colored grounds of gilt stucco surfaces as seen by combined microscopic, spectroscopic and elemental analytical approach. *Anal Bional Chem*, 2010, 2667-2676: 397 (7), doi: 10.1007/s00216-010-3491-4.
- 7) **J. Striova**, M. Camaiti, E.M. Castellucci, A. Sansonetti: Chemical, morphological and chromatic behavior of mural paintings under Er:YAG laser irradiation. *Appl Phys A*, 2011, 104: 649-660, doi: 10.1007/s00339-011-6303-6.
- 8) G. Lorenzetti, **J. Striova**, A. Zoppi, E.M. Castellucci: Confocal Raman microscopy for in depth analysis in the field of cultural heritage. *J Molec Struct*, 2011, 993: 97-103, doi:10.1016/j.molstruc.2010.12.057.
- 9) C. Colombo, F. Bevilacqua, L. Brambilla, C. Conti, M. Realini, **J. Striova**, G. Zerbi: Terracotta polychrome sculptures examined before and after their conservation work: contributions from non-invasive in situ analytical techniques. *Anal Bional Chem*, 2011, 401 (2): 757-765, doi: 10.1007/s00216-011-5085-1.
- 10) Conti C, **Striova J**, Aliatis I, Colombo C, Greco M, Possenti E, Brambilla L, Zerbi G: Portable Raman vs portable mid-FTIR reflectance instruments to monitor synthetic treatments used for the conservation of monument surfaces. *Anal Bional Chem*, 2013, 405:1733-1741, doi: 10.1007/s00216-012-6594-2.

- 11) C Conti, J Striova, I. Aliatis, E Possenti, G Massonnet, C Muehlethaler, T Poli, M Positano: The detection of Copper Resinate pigment in works of art: contribution from Raman spectroscopy. *J Raman Spectrosc*, 2014, 45: 1186–1196.
- 12) Sansonetti A., Colella M., Letardi P., Salvadori B., Striova J. Laser cleaning of bronze sculpture: a field multianalytical techniques evaluation, *Stud. conserv.* (2015) 60 S28-S33.
- 13) Striova J., Salvadori B., Fontana R., Sansonetti A., Barucci M., Pampaloni E., Marconi E., Pezzati L., Colombini M.P., Optical and spectroscopic tools evaluating Er:YAG laser removal of shellac varnish, *Stud. Conserv.* (2015) 60 S91-96 doi: 10.1179/0039363015Z.000000000213.
- 14) R. Fontana, A. Dal Fovo, J. Striova, L. Pezzati, E. Pampaloni, M. Raffaelli, M. Barucci, Application of non invasive optical monitoring methodologies to follow and record painting cleaning processes, *Appl. Phys. A* (2015) 121(3) 957-966 DOI: 10.1007/s00339-015-9505-5.
- 15) J. Striova, R. Fontana, M. Barucci, A. Felici, E. Marconi, E. Pampaloni, M. Raffaelli, C. Riminesi, Optical devices provide unprecedented insights into the laser cleaning of calcium oxalate layers, *Microchem. J.* (2016) 124 (331-337) doi: 10.1016/j.microc.2015.09.005
- 16) D. Ciofini, J. Striova, M. Camaiti, S. Siano, Photo-oxidative kinetics of solvent and oil-based terpenoid varnishes, *Polym. Degrad. Stabil.* 2016. doi 10.1016/j.polyimdegradstab.2015.11.002.
- 17) A. Sansonetti, J. Striova, D. Biondelli, I. Aliatis, L. Rampazzi, Hidden colours in stuccowork damaged by fire: a multi-analytical investigation for revealing the original decorative pattern, *J Cult Herit* 2016, <http://dx.doi.org/10.1016/j.culher.2015.11.002>.
- 18) C. Conti, M. Realini, C. Colombo, A. Botteon, M. Bertasa, J. Striova, M. Barucci, P. Matousek, Determination of Thickness of Thin Turbid Painted Over-Layers using Micro-Scale Spatially Offset Raman Spectroscopy, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 2016, 22: 1055–1060.
- 19) J. Blažek, **J. Striova**, R. Fontana, B. Zitova, **Improvement of the visibility of concealed features in artwork NIR reflectograms by information separation**. *Digital Signal Processing*. 2017, 60: 140-151.
- 20) Tasseva J., Taschin A., Bartolini P., Striova J., Fontana R., Torre R. **Thin layered drawing media probed by THz time-domain spectroscopy**, *Analyst*, 2017, 142: 42-45
- 21) M. Bertasa, E. Possenti, A. Botteon, C. Conti, A. Sansonetti, R. Fontana, J. Striova and D. Sali, Close to the diffraction limit in High Resolution ATR FTIR mapping: demonstration on micrometric multi-layered art systems, *Analyst*, 2017, 142 (24), 4801-4811
- 22) J. Striova, A. Dal Fovo, V. Fontani, M. Barucci, E. Pampaloni, M. Raffaelli and R. Fontana, Modern acrylic paints probed by Optical Coherence Tomography and Infrared Reflectography. *Microchem J*, 2018, <https://doi.org/10.1016/j.microc.2017.12.027>
- 23) P. Targowski, M. Iwanicka, M. Sylwestrzak, C. Frosinini, J. Striova, and R. Fontana Optical Coherence Tomography aids in revealing the hidden history of "The Landsdowne Virgin of the Yarnwinder" by Leonardo da Vinci and studio", *Angew Chemie*, 2018 DOI: 10.1002/anie.201713356 and 10.1002/ange.201713356
- 24) J Striova, L Pezzati, THE EUROPEAN RESEARCH INFRASTRUCTURE FOR HERITAGE SCIENCE (E-RIHS), 2017/8/18, ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, pp. 661-66
- 25) Striova J., Ruberto C., Barucci M., Blažek J., Kunzelman D., Dal Fovo A., Pampaloni E., Fontana R, *Angew Chemie, Spectral Imaging and Archival Data in Analysing Madonna of the Rabbit Paintings by Manet and Titian*, 2018 (57), 7408-7412. <https://doi.org/10.1002/anie.201800624>

Miloš Drdáký

Miloš Drdáký (Dipl. Eng., Ph.D., DrSc, dr. h. c., FENG) is Professor of the Czech Technical University in Prague (CTU) in the field of Theory of Structures, and a member of the Faculty of Architecture. He had been Director of the Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences (ITAM) in the years 1998 - 2017. He has been an external reader at other Czech and foreign universities – e.g., University Minho (Portugal), CPU Barcelona (Spain), UNIPADOVA (Italy), UCL London (UK), Centro universitario beni culturali Ravello (Italy), Donau University Krems (Austria), Corvinus University ISES Kőszeg (Hungary), and TU Braunschweig (Germany) in masters or doctoral courses. Under his leadership, the ITAM succeeded in becoming recognized and supported as an ARCCCHIP (Advanced Research Centre for Cultural Heritage Interdisciplinary Projects) European Centre of Excellence. This institutional development continued as ITAM established a new Centre of Excellence in the World Heritage City of Telč (CET) – a comprehensive research infrastructure dedicated to interdisciplinary research on cultural heritage problems under the expert supervision of Professor Drdáký in 2014. The development did not end there: ITAM became a partner of E-RIHS (European Research Infrastructure for Heritage Science), a new European research infrastructure which has been approved by the EC in 2014 and should to be functional in 2019. The scope of Professor Drdáký's research interests is extensive. Over the past decades he was responsible for dozens of national and international research projects focused on cultural heritage research. Major European projects included: On-Site Investigation Techniques for the Structural Evaluation of Historic Masonry Buildings ONSITEFORMASONRY (2002–2004), Intelligent Measurement Technology for Laser Cleaning of Historic Buildings and Monuments HISTO-CLEAN (2003–2004), Global Climate Change Impact on Built Heritage and Cultural Landscapes NOAH'S ARK (2004–2007), Assessment of Air Pollution Effects on Cultural Heritage – Management Strategies CULTSTRAT (2004–2007), Pro-Active Management of the Impact of Cultural Tourism upon Urban Resources and Economies PICTURE (2004–2007), Cultural Heritage Protection against Flooding CHEF (2007–2010), Development of Nanomaterials for the Consolidation of Historic Stone and Mortar STONECORE (2008–2011), New Integrated Knowledge-Based Approaches to the Protection of Cultural Heritage from Earthquake-Induced Risks NIKER (2009–2012). Important bilateral projects included NSF-supported projects involving U.S.-Czech engineering research, namely In-Situ Evaluation of Historic Wood Buildings (2001–2004), and In-Situ Evaluation of Masonry and Wood Historic Structures – Challenges and Opportunities (2006–2007); and AEDECC, an Austrian-Czech cross-border project devoted to the revitalization of unused church buildings (2013–2014). Professor Drdáký is Chairman of the Council for Research of the Czech Minister of Culture. He is an elected Fellow of the Czech Engineering Academy (FENG) and of the Examining Board of the Czech Chamber of Certified Engineers and Technicians for licensing in the testing of building materials and structures. Internationally he is a coordinator of the Working Group on Historic Cities and Territories of the Focus Area Cultural Heritage of the European Construction Technology Platform. Since January 2010 he has represented the Czech Ministry of Culture in a Joint Programming Initiative (priority “Cultural Heritage”) of the EU for the coordinated planning of cultural heritage research. Professor Drdáký is member of several international professional bodies – e.g., ASCE, IABSE, IASS, ICOMOS, RILEM – where he has been active in various scientific or technical committees (ICOMOS CIVVIH (for historic cities and villages), ISCARSAH (for historic structures), ISCS (for stone conservation), RILEM (for wood, masonry, and grouting). He has been acting an member of the editorial or advisory boards of both Czech and international journals, including the *Journal of Performance of Constructional Facilities* (ASCE), *Acta Technica CSAV*, the *International Journal of Architectural Heritage Conservation, Analysis and Restoration* and *Transylvania Nostra*. Since 2016 he is an elected President of the permanent scientific committee for “Stone conservation” conferences.

His research has been published in more than 490 publications, he has edited 27 books or conference proceedings, and he is author or co-author of three patents. In the field of cultural heritage research he was a member of an international research team awarded in 2009 with a EU Grand Prix and the “Europa Nostra” Award for the best European cultural heritage research; in 2017 he was a member of the team awarded “Europa Nostra Prize” for Master course SAHC; he was also part of a research team which was among the ten best research finalist of the 2013 EuroNanoForum.