

Curriculum Vitae



Personal information

Surname(s) / First name(s)

Gigante Giovanni Ettore

Address(es) Via Ettore Petrolini 49, 00197, Roma, Italy

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Fax(es) (remove if not relevant, see instructions)

E-mail giovanni.gigante@uniroma1.it

Nationality Italian

Date of birth 1 January 1948

Gender | Male

Desired employment / Occupational field

Full Professor of Applied Physics at Department Basic and Applied Sciences (SBAI) Sapienza University of Rome

Work experience

Dates | 1972-76

Occupation or position held | fellow in the

Name and address of employer | Faculty of Medicine of University of Rome "La Sapienza"

Type of business or sector | Applied Radiation Physics

Dates | 1976-83

Occupation or position held | Assistant professor

Main activities and responsibilities | Teaching and Research

Name and address of employer | Faculty of Medicine of University of L'Aquila

Type of business or sector | Applied Radiation Physics

Dates | 1983-86

Main activities and responsibilities | Teaching and Research

Name and address of employer | Faculty of Medicine of University of L'Aquila

Type of business or sector | Medical Physics and Archaeometry

Dates 1986-

Occupation or position held | Associate professor, full professor (2008)

Main activities and responsibilities | Teaching and Research

Name and address of employer | Department SBAI Sapienza University of Rome

Type of business or sector | Imaging and Archaeometry

(39-340) 4603451

Mobile:

Education and training

Dates

Title of qualification awarded

Degree of Physics

1971

Principal subjects/occupational skills

Basic and advanced Physics. Developing of research skills

Name and type of organisation providing education and training

Faculty of Science Sapienza University of Rome

Level in national or international classification

ISCED 5A

Personal skills and competences

Mother tongue(s)

Italian

Other language(s)

Self-assessment European level (*)

> **English French**

English, French

Understandi	ing	Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2
A2	A2r	A2	A2	A2

(*) Common European Framework of Reference for Languages

Social skills and competences

Attitude to the interdisciplinary research work. Good relational skills

Organisational skills and competences

He has been the President of the Council of Educational Area of Technology for Restoration and Conservation of Cultural Heritage at the University of Rome "La Sapienza" and national coordinator of University courses for Conservation and Restoration. He is a founder member of Italian Archaeometry Society.

He is the Italian coordinator of Erasmus-Mundus Master in Archaeological Materials Science (ARCHMAT)

He had the responsibility of national and international research projects funded by Italian Government, EU and NATO.

Technical skills and competences

He is an expert of ND techniques applied to the diagnostic procedures in the field of Medicine and Conservation. The main subjects of his activities are: Imaging with x ray, x ray spettrometry and development of related instrumentation.

Artistic skills and competences

Author of books and articles on the relationship between sciences and humanities having also a dissemination aim.

Other skills and competences

He was several times guest, also for long period, of foreign research institutions in Belgium, United Stated and Brazil. He is leader of some research projects and he his responsible for projects of cultural exchange with Mexico and Brazil.

Additional information

His research interest has been focused on the development of ND techniques, applied nuclear physics, imaging and image processing, archaeometry and conservation. He is author of a large number of papers concerning the x ray physics and the development of techniques in journals of physics and applied physics and, more recently, on technique for image acquisition and processing. He is involved in some international collaboration and was invited speaker in national and international conferences in biomedical physics and archaeometry.

- Pubblications 1. Gianni L., Gigante G. E., Cavallini M. e Adriaens A. "Corrosion of Bronzes by Extended Wetting with Single versus Mixed Acidic Pollutants", *Materials* 2014, 7(5), 3353-3370; doi:10.3390/ma7053353
 - 2. Schiavon N., De Caro T., Kiros A., Parisi I.E., Riccucci C., Gigante G.E., "A multi-analytical approach to investigate stone biodeterioration at a UNESCO world heritage site: the volcanic rock-hewn churches of Lalibela, Northern Ethiopia", Applied Physics A: Materials science & Processing, (2013) 113, 843–854 DOI 10.1007/s00339-013-7757-5.
 - Ingo G.M., et al. "Gold coated copper artifacts from the Royal Tombs of Sipán (Huaca Rajada, Perù): manufacturing techniques and corrosion phenomena", Applied Physics A: Materials science & Processing, (2013) 113, 877–887, DOI 10.1007/s00339-013-7711-6.
 - 4. Bustamante A., et al "Multilayered artifacts in the pre-Columbian metallurgy from the North of Peru" Applied Physics A: Materials science & Processing, (2013) 113, 889–903, DOI 10.1007/s00339-013-7738-8
 - Rao D.V., M. Bhaskaraiah, Cesareo R., Brunetti A., Akatsuka T., Yuasa T, Zhong Z. Takeda T. e Gigante G. E. "Synchrotron-based non-destructive diffraction-enhanced imaging systems to image walnut at 20 keV Journal of Food Measurement and Characterization, Journal of Food Measurement and Characterization, 7(1), 13-21, DOI 10.1007/s11694-012-9134-z, 2013
 - Kiros A., Lazic V., Gigante G. E. Gholap A.V. "Analysis of Rock Samples Collected from Rock Hewn Churches of Lalibela, Ethiopia Using Laser-Induced Breakdown Spectroscopy" Journal of Archaeological Sciences 40(5), 2570-2578 2013 doi.org/10.1016/j.jas.2013.01.028.
 - 7. Gigante G.E. and Ridolfi S. "X ray techniques and X ray fluorescence with portable systems", in 'Conservation Science An Application of Instrumental Analysis in the Preservation of Cultural Heritage', in series Lecture Notes in Chemistry, ed. E. Varella, Springer Verlag, 2012.
 - 8. Rao D.V., Swapna M., Cesareo R., Brunetti A., Akatsuka T., Yuasa T, Takeda T., Tromba G., Gigante G. E., "Synchrotroninduced X-ray fluorescence applied to invertebrates to investigate the role of essential trace elements in biological process. Physica Scripta, 85(2012) doi:10. 1088/0031-8949/84/06/065802
 - 9. Rao D.V., Swapna M., Cesareo R., Brunetti A., Akatsuka T., Yuasa T, Takeda T., Tromba G., Gigante G. E., "Synchrotronbased small angle X-ray scattering from biogenic materials. Physica Scripta, 84 (6), pp.6, (2011) 065802. DOI: 10.1088/0031-8949/84/06/065802
 - 10. Gigante G.E., Ridolfi S., Ferro D., "Diagnostic investigations and statistical validation of EDXRF mapping of the burial monument of Pope Sixtus IV by Antonio Pollaiolo (1493) in the Vatican", Journal of Cultural Heritage (2011), doi:10.1016/j.culher.2011.11.003.
 - 11. Cesareo R., Bustamante A., Fabian J., Alva W., Chero L., Espinoza C., Rodriguez R, Seclen M., Gutierrez V, Lévano E.B., Gonzales A.J., Rizzutto M.A., Poli E, Calza C, dos Anjos M, Lopes R.T., Gigante G.E., Ingo G.M., Riccucci C., Elera C., Shimada I., Curay V., Castillo M., Lopes F., "Evolution of Pre-Columbian Metallurgy from the North of Peru' Studied with a Portable Non-Invasive Equipment Using Energy-Dispersive X-Ray Fluorescence", Journal of Materials Science and Engineering B 1 176, 48-81, (2011)
 - 12. Rao D. V., Swapna M. Cesareo R., Brunetti A., Zhong Z., Akm atsuka, T., Takeda, T., Gigante G. E, "Use of synchrotronbased diffraction-enhanced imaging for visualization of soft tissues in invertebrates", Applied Radiation and Isotopes 2010, 68(9),1687-1693.
 - 13. Rao D. V., Swapna M. Cesareo R., Brunetti A., Zhong Z.,Akatsuka T, Yuasa T, Takeda T, Gigante GE. Cork embedded internal features and contrast mechanisms with DEI using 18,20,30,36 and 40 keV synchrotron X-rays", Research in Nondestructive Evaluation July 2010, 21(3): 171 - 183
 - 14. Visco, G., Ridolfi, S., Plattner, S. H.; Gigante, G. E "Razors, Horse Bits or Axes; Search of the Different Composition in Common Use Bronze Villanovan Objects (VIII-VII Century B.C., Italy) by Multivariate Analysis", Current Analytical Chemistry, 2010, 6 (1), 11-18.
 - 15. Corbellini, S., Parvis, M., Grassini S., Piantanida, M., Consalvi, F., Gigante, G.E., Meddi, F., "Electrical Tomography for the Monitoring of Water Moisture in Painted Walls and Ceilings", Proceedings IEEE International Instrumentation And Measurement Technology Conference I2MTC Austin, TX Maggio 03-06, 2010
 - 16. Rao D.V., Swapna M., Cesareo R., Brunetti A., Akatsuka T. Yuasa T, Takeda T., Tromba G. e Gigante G. E., "Synchrotron-based X-ray fluorescence, imaging and elemental mapping from biological samples" Pramana Journal of Physics, 76(2), 1-9 (2011).
 - 17. Guida G., Artioli D., Ridolifi S. Gigante G. E., "Study by Mobile Non Destructive Testing of The Bronze Statue of The "Satiro" of Marsala., Science for Cultural Heritage' Technological Innovation and Case Studies in Marine and Land Archaeology in the Adriatic Region and Inland, 23-30, 2010, World Scientific Publishing Co., Singapore ISBN-13 978-981-4307-06-2 o 978-981-4307-07-9 (eBook)
 - 18. Cesareo R., Ridolfi S., Marabelli M., Castellano A., Buccolieri G., Donativi M., Gigante G. E., Brunetti A. e Rosales Medina M. A., "Portable Systems for Energy-Dispersive X-Ray Fluorescence Analysis of Works of Art " in Portable X-Ray Fluorescence Spectrometry: Capabilities for in Situ Analysis di Philip J. Potts, Margaret West, The Royal Society of Chemistry, 2008 ISBN-13: 9780854045525, 206-243.
 - 19. Gigante G.E., Artioli D., Ferro D., Gabrielli N., Guida G., Guido S., Guiso M.,Mantella G, Ridolfi S., "Restoration of the Funeral Monument of Pope Sixtus IV By Antonio Pollaiolo (1493) in the Vatican Basilica, Non Invasive and Microdestructive Analysis. An Operation Protocol", proceedings of ART '08 NDT.net Issue 2008-09 ISSN 1435-4934 http://www.ndt.net/article/art2008/papers/ 154Gigante Ridolfi.pdf.
 - 20. Cesareo R., Gigante G. E, Castellano A., Iwanckyk J.S., "Portable Systems for Energy Dispersive X-Ray Fluorescence Analysis", Encyclopedia of analytical Chemistry, curata da R. A. Meyers, ed. John Wiley & sons, 1-17, 2009.

Rome, February 8 2015