



Giovanni Ettore Gigante

Curriculum Vitae



Born 1948, graduated in physics in the 1971 at the Sapienza University of Rome.

1972-76 fellow and after researcher in the Faculty of Medicine of Sapienza.

1976-86 assistant professor then 1983 associate professor at the Faculty of Medicine of the University of L'Aquila

1986- 2008 at the Faculty of Science-Department of Physics of Sapienza.

2008 full professor of Applied Physics at the Department of Basic and Applied Sciences of Sapienza University of Rome.

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.

His main activity in the last period was in the development of university curricula for the education of scientists for the conservation and restoration of Cultural Heritage at national and international level. In the 2001 started in Italy the new higher education system following the Bologna Process of harmonization of higher education in Europe, in this transformation a specific class for the education of scientists and conservator-restorers was created by Italian Ministry of Research and University.

He the promoter and first coordinator of the Didactic Area of Technology for Conservation and Restoration of Faculty of Science of Sapienza University of Rome part of world.

He is now responsible for the European Master in Archaeological Material Sciences (ARCHMAT) of the UE, open to students of all part of world.

He is involved in teaching activity in some graduation and post-graduation courses: a) Physical Methods for the Cultural Heritage (teaching non-destructive methods for the study of work of art with special emphasis for the x ray techniques); b) Archaeometry at the second year of the master course in Applied Science for Cultural Heritage (advanced methods for the characterization of material and the new prospects in this field); c) Image analysis and image processing at the post-graduation level (teaching the basic of image analysis and digitalisation and the image processing techniques).

Its activity is demonstrated by participation in international conferences as a speaker, the presentation of several research projects also outside the European Union and the drafting of some chapters of books on advanced scientific methodologies for the study and control of Cultural Heritage.

Five recent publications:

- 1) 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).

- 2) 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 Pollaiuolo (1493) in the Vatican", *Journal of Cultural Heritage*, 13(3), 345-351 (2012) doi:10.1016/j.culher.2011.11.003.
- 3) 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.
- 4) Cesareo R., Bustamante A., Fabian J., Zambrano S., 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., Elera C., Shimada I., Curay V., Castillo M., Lopes F., Holmquist U., Diestra D. "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
- 5) Ingo G.M., Bustamante A., Alva W., Angelini E., Cesareo R., Roberto Cesareo, Gigante G.E., Zambrano S., Riccucci C., Di Carlo G., Parisi E., Faraldi F., Chero L., Fabian J., "Gold coated copper artifacts from the Royal Tombs of Sipán (Huaca Rajada, Perú): manufacturing techniques and corrosion phenomena", *Applied Physics A: Materials science & Processing*, (2013) 113, 877–887, DOI 10.1007/s00339-013-7711-6.

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