

**Notre Dame–Europe Symposium on Nuclear Science and
Society**

**Notre Dame Rome Center
November 4-6, 2015**

Schedule of Talks

Wednesday, November 4, 2015

9:00-9:10 Welcome and Announcements

Session I

Chair: *W. Gelletly*

9:10 *M. Wiescher(Notre Dame): From Nuclear Astrophysics to Material Analysis,
an overview of the Notre Dame Nuclear Science*

Laboratory

9:40 *W. Kutschera(Vienna): The Iceman Ötzi and the glacial environment of the
European Alps during the Holocene*

10:10 *E. Boaretto (Rehovot): Choosing the best atoms for ¹⁴C dating: archaeological
on-site and off-site pre-screening approaches*

10:40-11:00 Break

Session II

Chair: *A. Aprahamian*

11:00 *D. Gura and K. Manukyan (Notre Dame): Raman Spectroscopy and XRF
Analysis on Medieval Pigments in a
Fifteenth-Century Manuscript*

11:30 *D. Bradley (Surrey): Technologically Enhanced Naturally Occurring Radioactive
Material: Examples from the Oil and Gas Industry.*

12:00 *M. Paul (Jerusalem): Galactic clocks and thermometers*

12:30-14:00 Lunch

Session III

Chair: *G. Lotay*

14:00 *P. Mandò (Florence): LABEC in a "historical" perspective: birth and first years
of activity*

14:30 *F. Marzaioli (Naples): Radiocarbon dating of Mortars: the Cryo2SoniC
procedure development at CIRCE Lab*

15:00 *L. Calcagnile (Salento): CEDAD: A Growing Facility for the Application of
Nuclear Methods in Cultural Heritage, Environmental
and Materials Sciences*

15:30-15:50 Break

Session IV

Chair: K. Uplekar

15:50 C. Ponta (Bucharest): *Preservation of cultural heritage artefacts by irradiation*

16:20 M. Fedi (Florence): *True or false? A discussion on radiocarbon applied to authentication art issues*

16:50 R. Pozzo (Rome): *Research Infrastructures and Cultural Innovation*

5:30 **Reception**

Thursday, November 5, 2015

Session V

Chair: P. Collon and U. Garg

9:00 W. Bauer (East Lansing): *Forgery protection of artwork with rare isotope stamps*

9:30 M. Martini (Milano): *New perspectives in luminescence dating*

10:00 P. Collon (Notre Dame): *Accelerator Mass Spectrometry at the Nuclear Science Laboratory at Notre Dame:*

10:30-10:50 Break

Session VI

Chair: K. Manukyan

10:50 S. Bishop (Munich): *Discovery of Supernova-Produced ^{60}Fe in the Earth's Microfossil Record*

11:20 A. Dewald (Köln): *Accelerator Mass Spectrometry at CologneAMS; Performance and Applications*

11:50 G. Quarta (Salento): *Recent Developments at the Center for Dating and Diagnostics (CEDAD) of the University of Salento*

12:20-13:30 Lunch

Session VII

Chair: A. Bracco

14:00 M. Chiari (Florence): *A Roadmap for the Ion Beam Techniques*

14:30 A. Zucchiatti (Madrid): *Applying Ion Beam Analysis to the study of ancient ceramics*

15:00 Z. Szikszai (Debrecen): *Ion beam analysis at MTA Atomki - Applications in heritage science and aerosol research*

15:30-15:50 Break

Session VIII

Chair: P. Prati

15:50 M. Molnar (Debrecen): *A new compact C-14 AMS in ATOMKI and its applications in art, archeology and environmental studies*

16:20 A. Kumar (Varanasi): *Measurement of neutron cross sections using particle accelerator and future plans using PIXE and PIGE*

16:50 L. Bertrand (Saclay): *Novel methodological developments for the synchrotron study of ancient materials: Perspective within the European research infrastructure for Heritage Science*

Friday, November 6, 2015

Session IX

Chair: **F. Terrasi**

9:00 **D. Massabò (Genoa)**: *Multi-technique characterization of carbonaceous aerosol*

9:30 **M. Respaldiza (Sevilla)**: *Use of portable microXRF and other non-destructive analytical techniques in Cultural Heritage applications*

10:00 **F. Lucarelli (Florence)**: *Accelerator based techniques for aerosol analysis*

10:30-10:50 Break

Session X

Chair: **G. Imbriani**

10:50 **L. Gialanella (Naples)**: *Investigation of wear by implantation of radioactive ions*

11:20 **J. Guiterrez (Sevilla)**: *Long-lived radionuclides: following hidden tracks in the environment*

11:50 **V. Virgili (Rome)**: *Large-scale facilities of IPERION CH-Integrated Platform for the European Research Infrastructure for Cultural Heritage*

12:20 **Conclusion**