



## Meeting Program

### Sunday 1 October 2006

19:30- Meeting Opening: welcome party, registration

### Monday 2 October 2006

8:00-9:00 Registration  
9:00-9:30 Welcome from Mayor of Nemi City Council, Avv. **A. Biagi** et al.

9:30-10:30 *Opening Lecture*  
**N. Gabrielli:** The Measurements in Art

10:30-10:50 coffee break

#### **Cultural Heritage Session; Chairman: L. Campanella**

10:50-11:15 **P. Fermo**, E. Delnevo, M. Lasagni, S. Polla, M. de Vos: Application of Chemical and Chemometric Analytical Techniques to the Study of Ancient Ceramics from Dougga (Tunisia)  
11:15-11:40 **R. Checa**, E. Manzano, L.R. Rodríguez-Simón, L.F. Capitan-Vallvey Comparison Between Traditional and Pattern Recognition (SIMCA) Strategies in Classification of Old Proteinaceous Binders  
11:40-12:05 **P. Ballirano**, R. Caminiti, C. Sadun, G. Caracciolo: The Use of Energy Dispersive X-ray Diffraction (EDXD) for the Investigation of the Structural and Compositional Features of Old and Modern Papers  
12:05-12:30 **E. Robotti**, E. Marengo, M. Bobba, A. Panepinto: Monitoring of the Surface of Paper Samples Exposed to UV Light by ATR-FT-IR Spectroscopy and Multivariate Control Charts  
12:30-12:55 **F. Malaspina**, **E. Vuerich**, M. Barazzutti, T. Georgiadis, M. Nardino: Indoor Measurements of Ozone, Ions Concentration, Microclimate Variables in the Monastero of San Vincenzo's Church (Bassano Romano - Italy)

13:00-15:00 lunch

#### **Environment Session; Chairman: P. Barbieri**

15:00-15:40 *Lecture*  
**L. Campanella:** The quality of the measurements and the quality of life  
15:40-16:05 **P. Barbieri**, P. Busetto, L. di Monte, P. Plossi: How Useful Classical Chemometrical Approaches Can Be In Environmental Assessment? A Case Study About Source Identification for Dioxins and Furans in an Urban-Industrial Coastal Area  
16:05-16:30 **M. Calderisi**, A. Livio, D. Frustace, G. Valentini, A. Cecchi: New Multivariate Approach for the Handling of Electronic Nose Data Applied to Composting Process  
16:30-16:55 **A. Baklanov**, **S. Zilitinkevich**: Urban Air Quality Information and Forecasting Systems for Saving of Cultural Heritage

16:55-17:15 coffee break

17:30- Social Program: Visit at the "Museo delle Navi" (Old Ships Museum)

## Tuesday 3 October 2006

### ***Chemometry Session; Chairman: M. Calderisi***

09:00-09:40 Lecture

**E. Marengo:** Chemometrics as a Tool Investigating Environment and Cultural Heritage Problems

09:40-10:05 F. Marini, R. Bucci, A.L. Magrì, A.D. Magrì: Artificial Neural Networks in Chemometrics: History, Examples and Perspectives

10:05-10:30 G. Visco, E. Gregori, M. Tomassetti and L. Campanella: Counterfeit on a Roman Imperial Statue: Pattern Recognition Helps Diagnostic Performed with ICP and TG of a Torso and a Head of One Marble Sculpture

10:30-10:50 coffee break

### ***Cultural Heritage Session Session; Chairman: G.E. Gigante***

10:50-11:15 F. Modugno, E. Ribechini, M.P. Colombini, M. Calderisi: Analysis of Triterpenoid Resinous Materials by Direct Exposure Electron Ionization Mass Spectrometry (DE-MS): PCA Evaluation of Mass Spectral Data

11:15-11:40 F. Bellanti, M. Tomassetti, G. Visco and L. Campanella: A Chemometrics Approach to the Historical and Geographical Characterisation of Different Terracotta Finds

11:40-12:05 H. Khajehsharifi, G. Vatankhah, M.F. Mousavi: Determination of Sulphite ions Using a Whole Curve of Kinetic Run and a Fixed Time Method and Applying Partial-Least Squares

12:05-12:30 M.I. Dias, M.I. Prudêncio: On the Importance of Using Sc to Normalize Geochemical Data Previous to Multivariate Analyses Applied to Archaeometric Pottery Studies

12:30-12:55 C. Coluzza, A. L. De Rosa, D. Ferro, G. Piantanida, R. Reale, E. Formigli, L. Bondioli, M. Bicchieri: Surface Physics Applied to Cultural Heritage

13:00-15:00 lunch

### ***Environment Session; Chairman: E. Marengo***

15:00-15:25 M. I. Prudêncio, M.I. Dias, F. Ruiz, M. Abad: Multivariate Analysis Contribution to Evaluate Anthropogenic Inputs of Chemical Elements in Lagoon Sediments

15:25-15:50 P. Avino, G. Capannesi and A. Rosada: Heavy Metals Determinations in Atmospheric Particulate Matter by Instrumental Neutron Activation Analysis

15:50-16:15 B. Giussani, D. Monticelli, A. Pozzi, C. Dossi, E. Ciceri: Two and Three Way Principal Component Analysis of Environmental Data from Lake Como Basin and Watershed

**Poster Session**

16:30-17:30

**G. Dogan, S. Atgin, A. Zararsiz, R. Kirmaz, G. Tuncel:** Source Contributions to Sediment Trace Element Levels in Izmir Bay (Turkey)

**F. Modugno, E. Ribechini, M. Calderisi:** Analysis of Lignin from Archaeological Waterlogged Woods by Direct Exposure Mass Spectrometry (DE-MS) and PCA Evaluation of Mass Spectral Data

**S.H. Plattner, L. Campanella, O. Colacicchi, M. Ferretti:** The Corrosion of Archaeological Copper Alloys. The Case Study of a Coin Hoard From the Tenuta Radicicoli-del Bene, Rome

**E. Robotti, E. Marengo, M.C. Gennaro, A. Maiocchi, G. Pavese, A. Indaco:** Statistical Analysis of Ground Water Table Distribution in Alessandria Province (Piedmont – Italy)

**T. Trafela, M. Strlic, J. Kolar, D. A. Lichtblau, M. Anders, G. de Bruin, B. Knight, G. Martin, J. Palm, N. Selmani, M. Chr. Christensen:** SurveNIR Project – Development of a Non-Destructive Tool for Paper Characterisation Based on NIR spectroscopy

**L. Trizio, P. Bruno, M. Caselli, G. de Gennaro:** Development of Intelligent Systems with Predictive Capability for the Elaboration of Environmental Data

**G. Visco, F. Bellanti, M. Castrucci, D. Ruiu, T. Zoccarato:** Ecopharmacology: the Deliberated or Casual Dispersion of Pharmaceutical Principles, Phytosanitary, Personal Health Care and Veterinary Products in Environment Needs a Multivariate Analysis or an Expert Systems for the Control, the Measure and the Remediation

17:30-      **Prize Party**, winners acclamation of the three best presentation young prizes (on chemometry, on environment, on cultural heritage) and the overall best presentation. The prizes are supplied by "Divisione Ambiente e Beni Culturali della Societa' Chmica Italiana" and by Camo Software House producer of Unscrambler.

20:30-      **Social Dinner**, the participants are welcome in a typical restaurant under a destroyed medieval castle (build in XII seculum on "Fundus Gentianus") in Genzano with, also, the famous DOP bread.

**Wednesday 4 October 2006****Environment Session; Chairman: M.I. Prudêncio**

09:00-09:25    G. de Gennaro, **P. Ielpo**, P. Bruno, M. Caselli, V. Paolillo, B. E. Daresta, C. M. Placentino, P. R. Dambruoso, L. Trizio: Application of Receptor Models to PM10 and PM2.5 Samples

09:25-09:50    **G. Dogan, G. Güllü** and G. Tuncel: Sources and Source Regions Effecting the Aerosol Composition of the Eastern Mediterranean

09:50:10:15    **F. S. Panero, H. E. B. Silva:** Application of Exploratory Data Analysis: HCA and PCA in the Classification of Tubular Wells of the North of Brazil

10:15-10:40    **G.R. Casale, A.M. Siani, S. Palmieri, L. Campanella:** Spectral Changes of Paper Exposed to Ambient Solar Radiation

10:40-11:00    coffee break

***Cultural Heritage Session Session; Chairman: M. Tomassetti***

- 11:00-11:40      *Lecture*  
**G.E. Gigante:** The Formation of Scientific Experts and Restaurateurs in Italy and in the World
- 11:40-12:05      R. Cesareo, G. E. Gigante, G. Guida, **S. Ridolfi:** Synergy Between Non Invasive Measurements and Multivariate Analysis in Cultural Heritage
- 12:05-12:30      **F. Cecere**, A. Carraro, D. Ferro, G. Visco: Characterisation of "Glassy Materials" from Meridional Etruria (Latium, Italy) Through the Utilization of Multivariate Scientific Methodologies
- 12:30-12:55      **A. Macchia**, M. Laurenzi Tabasso, M.P. Sammartino and G. Visco: SEM/EDS analysis of incrustations coming from the "Fontana delle Tartarughe" (Turtles Fountain) located in Rome, Italy
- 12:55-13:10      Meeting Closing: thanks, next Meeting announcements
- 13:10-              lunch

**Sunday 1 June 2008**

- 19:30-              Meeting Opening: welcome party, piano jazz, registration