



Use of Multivariate Analysis and Chemometrics in Cultural Heritage and Environment, 2012

Rome, Italy, Europe, 27-30 May 2012

Organised by: CMA4CH staff with patronise of Rome University, Unesco, Italian Chem. Soc.,

<http://w3.uniroma1.it/cma4ch>

CMA4CH

Almost everything in the world is multivariate, so multivariate analysis and chemometry are fundamental tools for data processing. A really positive effect, in terms of increasing and improving information, on all the steps of the "analyticae itineri", as well as on any action regarding the remediation or restoration (both in case of the environment and cultural heritage) and the planning of best conservation conditions that can be obtained.

Where, When

A nice landscape and pleasant climatic conditions ensure a good extra-conference time; that's why we have chosen Rome, a small ancient village on the sides of Tiber river, near some old ancient volcanoes.

The legend deals with one of the first Greek colony in Italy. This small village held numerous historical places from the Bronze Age to Renaissance and Modern Art. In May a very nice weather is foreseen with a "good confidence interval".

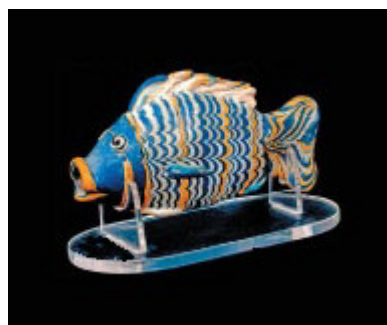
Why

The main Meeting purpose is to promote the cooperation between researchers working on different multidisciplinary topics but having the same final aim which can be summarised in "Environment and Cultural Heritage Protection".

Researchers not enough familiar with Multivariate Analysis and Chemometry can obtain "more information" from their, generally big, amount of data, while experts on advanced statistic methods may gain new kind of data to process.

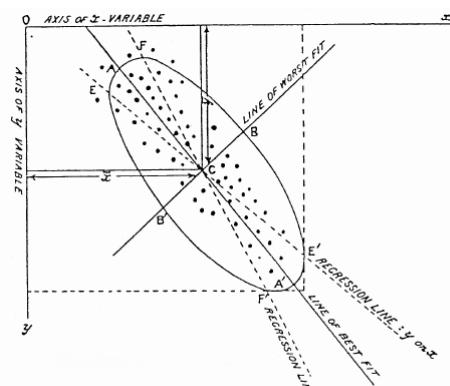
A first list of researchers with the related research topics will be drawn,

updated and continuously available by the Meeting's Organising Committee through the Internet and/or mailing list.



Ancient Akhenaten, decorated glass vessel in the shape of a fish excavated from Tel el-Amana, Egypt, dated 14th century bC. British Museum (EA55193), from Spectrosc. Eur. (2005), 17(1), 24-30

improve the knowledge on environment and cultural objects are the main target group of the Conference, however, experts in diagnostic applied to the topic themes, restorers and everyone involved in Environment and Cultural Heritage protection, are welcome to ensure an useful exchange of news on the "State of Art", particularly on current unsolved problems.



Physically the axes of the correlation type-ellipse are the directions of independent or uncorrelated variation. Hence the line of best fit is a direction of uncorrelated variation. Do you recognise this graph? Author? Date?

Who

From the main Meeting purpose arises that theorists, researchers, professors, experts, technicians who apply advanced statistic methods to

Topics

1. Application of M.A. and Chemometrics in the field of Cultural Heritage:

- diagnostic methods on objects, sites, buildings, places;
- environmental and anthropic impact on finds;
- museum/archive conditions;
- absolute or relative dating of cultural finds;
- cultural finds authorship;
- provenance of origin of constituting materials;
- spotting of restoration, aids in conservation;
- effect of age, artificial ageing;
- Multivariate Analysis aids archeometry;
- true or false, forensic implications.

2. Application of multivariate analysis in the Environmental field:

- analytical methods;
- monitoring stations and passive samplers;
- chemical, physical and aesthetic pollution (air, water, soil, indoor);
- health resorts;
- climate and pollution;
- pollution impact on human health (direct and indirect);
- long term effects of pollution.

3. Theoretical:

- new algorithm in Multivariate Analysis and Chemometry;
- new calculation methods;
- migration from theoretical statistical study to chemometrics;
- didactic applications.

4. What's your problem?

- Ask for help from chemometricians.
- Solve forensic problems with chemometry.

A selection of papers from the I, II and III CMA4CH edition is published in several famous international journals as Microchem.J, Curr.Anal.Chem, Chem.Centr.J.

If we will reach almost 9 students an "inexpensive course, chemometry for novices" will be held from 28 to 30 May :-)

Scientific committee, organisation

R. Brereton, B.M. Wise, W. Kosmus, O. Arias de Fuentes, J.B. Ghasemi, M.I. Prudêncio, A. Kachbi, A. Montenero, M. Tomassetti, G.E. Gigante, A.M. Salvi, P. Barbieri, B. Giussani, R. Leardi, M. Calderisi, M.P. Sammartino, F. Marini.
Coordinator: G. Visco

Important deadlines

Further details, including registration form, registration fee, scientific program, travel and accommodation are available on the continuously updated web site.