

The group annually arranges the

Norwegian Chemometric Symposium

with invited speakers and participants from research institutes, schools and various industry such as:

- Petrochemical
- Chemical
- Pharmaceutical
- Food
- Aquaculture

Every year, an invited speaker from another field of science is asked to challenge the chemometric community in terms of what is "good science, followed by a panel discussion. Topics such as empirical vs. deterministic modelling and validation always ensure interesting debates, which continue at the banquet and into the wee small hours!



- My crystal ball works with multivariate analysis

Contact

For further information, please contact

frank.westad@matforsk.no

bjorg.narum.nilsen@matforsk.no

Visit our internet site

<http://www.kjemometri.org>

... and may your data be with you!



**THE NORWEGIAN
CHEMICAL SOCIETY'S
GROUP OF CHEMOMETRICS**



The Chemometric Group of the Norwegian Chemical Society

The Chemometric Group of the Norwegian Chemical Society was founded in 1989 by some creative and foresighted young scientists.

The purpose of the group is to strengthen the chemometric role in teaching, research and industry.

The number of members is about 300. The group is supported financially by sponsors from industry and research institutes.

What is chemometrics?

There are many definitions, but the need for such a term arose with the increased use of computers - and thereby mathematics and statistics - in chemistry.

The tools we use to collect and analyze vast amounts of data are often some types of Design of Experiments and Multivariate Analysis, focusing on validation, graphics and interpretation

The members of the chemometric group are involved in:

- applying chemometrics in fields such as:
 - Process optimisation and control
 - Product development
 - Analytical method development
 - Quality control
 - Product degradation studies and shelf life estimation
 - Evaluation of biological effects (i.e., toxicity)
 - Sensory analysis
- chemometric method development
- publishing chemometric news and applications
- Teaching and giving courses

Research activities

The different groups at universities and research institutes in Norway have focused primarily on these topics the past ten years:

- **Curve resolution**
Methods have been developed for unsupervised extraction of pure component's profiles from 2D techniques such as GC-MS and LC-UV
- **Multivariate Image analysis**
This approach to image analysis makes use of the interactive mapping from image to latent variable space for classification and regression modelling
- **Variable selection**
The parsimony principle is applied in explorative data analysis, classification and regression. Resampling methods have shown to be versatile tools for these purposes
- **Process chemometrics**
These activities include on-line monitoring of complex processes with analytical instruments
- **Dynamic modelling**
The relation between state-space and empirical models have been elucidated from co-working with process control and cybernetics communities