## SWISS STATISTICAL SOCIETY www.stat.ch

# STATISTICAL MODELLING, JUNE 4–6, 2003 Prof. Alan Welsh, Southampton University COURSE CENTER UNTERHOF, DIESSENHOFEN



#### Speaker

Professor Alan Welsh of the Department of Mathematics at the University of Southampton is an expert in statistical modelling and inference, including graphical and nonparametric methods. His many publications

include both methodological contributions and the dissemination of new ideas in application area journals. He was awarded the Moran Medal (Australian Academy of Science) and is a fellow of both the Institute of Mathematical Statistics and The American Statistical Association. He is on the Research Committee of the Royal Statistical Society. Professor Welsh has carried out consultancies for the Commonwealth Department of Community Services and Health, Environment Australia and the Australian Bureau of Statistics. He is currently working on an Office of National Statistics project and an EPSRC-funded e-science grant (Structure-Property Mapping: Combinatorial Chemistry and the Grid).

## Topics

This course will present an overview of selected topics in

statistical modelling by examining some interesting data sets and, through their analysis, exploring the application and use of statistical models. The specific topics will be determined by the modelling requirements for the data sets but will include multiple regression, generalized linear models, nonlinear regression and some smoothing methods, including possibly generalized additive models, neural networks, regression trees etc.

The development will be structured around data sets chosen to illustrate empirical modelling (structure/property mapping in chemistry), fitting theoretical models (physical chemistry) and modelling survey data (ecology and official statistics). The background and context of the datasets which is needed for modelling (and for interest) will be explained. The emphasis will be on practical issues in statistical modelling. Exploratory and diagnostic methods will be emphasised and difficulties in using these methods will be discussed. General issues in the use and interpretation of the models will be discussed. The intention is to explore the the art and science of statistical modelling through practical experience.

#### Applications

This is an applied course in statistical modelling. Participants are expected to bring their laptops with the R or S-Plus Software and - if possible - their own data sets. On each day there will be enough time for exercises, applications and personal consulting with Prof. Alan Welsh.

## Location

The course will be held in the course center Unterhof Diessenhofen, Switzerland (http://www.unterhof.ch).

### Registration

Course fee: SFR 1290 for members of the Swiss Statistical Society. The course fee includes all meals and accomodation in single rooms. Participants arriving on June 3, 2003

should add SFR 145 for bed and breakfast.

A limited number of course places are reserved for participants from academic and non profit organisations. The reduced course fee of SFR 750 includes accomodation in double rooms and all meals.

The number of participants is limited to 20, with a minimum of 16 people. All lectures will be given in English.

#### Registration deadline: April 30, 2003.

For registration after April 30, 2003, SFR 200 will be added.

Please use the registration form on the next page!

Further information: caterina.savi@winterthur.ch

