

Editorial

After a dormancy period due to several reasons, it is a great pleasure to issue volume 7 number 1 of **CSBIGS (Case Studies in Business, Industry and Government Statistics)**.

As usual according to the CSBIGS policy, this issue gives you a chance to work with the data sets kindly provided by the authors. This issue comprises four papers: two with applications to biology, one to sociology and one to land use.

Delyon et al. present models for the growth of the bacterium *E. coli* cells with binary genealogical trees. The biological question is to compare the influence of the mother and higher ancestors on the growth rate of a given cell and compare it to a sister cell. They present and analyze two data sets coming from biological experiments using asymmetric Bifurcating Autoregressive models.

Holsbø and Perduca present a Stein-Efron shrinkage estimator of crime rates in Norwegian cities based on a Bayesian approach. The estimator shrinks each town's local estimate of crime probability toward the grand mean of the country-wide average crime rate according to town size. The authors rely on a moment-based method to design a beta prior knowledge on each local estimate in order to borrow information from the crime rates of the other cities of the database.

N. Wicker present methods for constructing particular experimental designs, namely repeated split-plot designs with additional neighbourhood constraints. The biological application is the placement of mice in cages with different constraints.

Finally, Chakir et al. address the problem of areal level land use classification from the infor-

mation provided by point level databases such as the area frame surveys (American NRI survey, EUROSTAT Lucas survey, French Teruti-Lucas survey) and easily accessible covariates. A synthetic dataset is used for illustration and generated by a model formerly fitted to the Teruti-Lucas database. The paper analyzes the different components of the prediction error at areal level and emphasizes the relationship between the prediction difficulty and the impurity of the categories probabilities measured by the Gini-Simpson index.

I would like to thank again the members of the editorial board and the reviewers for their hard work and all the authors for their contribution. Would you like to join this team, please send me a vitae with your themes of expertise in statistics.

CSBIGS launches a special issue at the occasion of the international conference CAPS 2019 <http://caps2019.viasm.edu.vn/> in Vietnam next April. We look forward to hearing from you soon.

Christine Thomas-Agnan
Editor in chief CSBIGS
christine.thomas@tse-fr.eu
<http://www.csbiggs.fr>
September 17 2018.

