



## APPLIED STATISTICS WORKSHOP

Christian Ritter,  
Institut de statistique, Belgium  
&  
Thomas Costenoble,  
Vinopres, Belgium

*" Statistical Analysis of a Wine Competition -  
A Sobering Experience? "*

**Friday, March 20, 2009**

**16:00**

**Room : c 115 (STAT)**

### Abstract

Over the past 5 years, Vinopres, the organizer of the annual Concours Mondial de Bruxelles (CMB), one of the world's largest wine competitions has worked with members of the Institut de Statistique-UCL on ways to eliminate bias and to characterize and improve precision in scoring the wines. At this competition, about 6000 still wines, sparkling wines, sweet wines, and spirits are tasted during a 3 day by over 200 wine experts. Obviously, it is unimaginable that each taster tastes all wines. However, at the end all wines receive a score between 0 and 100 and on the basis of this score medals are attributed. The first challenge is to attribute these medals in a fair way, even among wines which were not tasted by the same tasters. Moreover, the concern for fairness has to be communicated to the clients consisting wine makers, wine experts, and consumers. Last but not least, care is needed to assure that the participating tasters enjoy the tasting. In this talk, we shall explain the tasting protocol, the allocation of wines to taste series, the constitution of tasting panels from the available tasters, and the way wine scores are compared between wines which were not tasted by the same tasting panels. This explanation will clearly expose the practical and statistical problems associated with the event which led to the collaboration between Vinopres and the Institut de Statistique. We will then discuss some of the approaches which we have tried so far in the attempt to better understand bias and variability in the context of the CMB and to introduce methods aimed at reducing both. Our results are mixed. The attempt to reduce bias by the introduction of reference wines failed, yet, its failure provided very useful information for improving the organization of the event. Moreover, our work has shown that the very basic method for combining scores from different commissions may be sufficient for practical purposes as long a few basic precautions are taken. Finally, our work has enabled us to quantify the inherent variability in the CMB and to follow it over time. Overall, our work clearly suggests that a wine to which a medal was attributed is a good wine which has no deficiencies. On the other hand, we learned, that a wine which under suitable conditions can yield an exciting score corresponding to a great gold medal, may score less in a less appropriate context. This underlines the take home message for the audience: When you buy highly decorated wine at a high price, make sure that the occasion and the context live up to it.

**You are welcome to the coffee break before the seminar (room : c 105)**

Visit our page at: <http://www.uclouvain.be/72906.html>