

The Working Group on Risk, with the support of the group BFA (SFdS) and of the Institute of Actuaries (IA), has the pleasure to invite you to the Seminar by:



Cees de VALK

Center, Tilburg University (The Netherlands)



October 2, 2013 at 12:30 pm
EEE - ESSEC La Défense – room 220

Toward a 'new' approach to estimation of high quantiles

The Generalised Pareto (GP) tail approximation is often used to estimate high quantiles. Theory supports this if in addition to extended regular variation of U (the inverse of $1/(1-F)$), a certain rate for the convergence to the GP tail limit is assumed, which is quite restrictive for high quantiles with very low probabilities of exceedance. To remove these restrictions, a natural generalisation leads to a Generalised Weibull tail limit for the logarithm of the quantile. Such a log-GW tail limit implies for log-GW quantile approximations that certain probability-based approximation errors vanish, and this result can be extended to a simple high-quantile estimator. Some extensions, e.g. to estimation of probabilities of multivariate and infinite-dimensional extreme events are briefly discussed as well. The approach is an example of a certain way of "measuring" differences between small probabilities which appears to be relevant for risk analysis in engineering, epidemiology and finance.



YOU HAVE THE ANSWER

*For any information, please contact
Frédérique JEAN-LOUIS
(01 34 43 32 49 / jeanlouis@essec.fr)*

Cees de VALK

Senior Adviser Oceanography & Risk (Netherlands)

ESSEC
BUSINESS SCHOOL

Cees DE VALK has over 25 years of experience as a researcher and consultant in oceanographic data analysis and modelling, and in analysis of hazards related to the ocean environment.

In 1995, he co-founded ARGOSS, which became part of BMT Group in 2008.

