Description:

The Rmetrics Association is offering a high quality training course in advanced portfolio design, optimization and stability analysis, based on the "Portfolio Optimization with R/Rmetrics" eBook*. The course consists of four blocks, composed of 30% lecture, 20% examples and 50% case studies.

This workshop is a part of the three day workshop on Advanced Applications of R in Portfolio Management from 24th March to 26th March, 2011.

Course Topics:

**Markowitz Portfolio Optimization**
Portfolio construction, quadratic programming, risk minimization, return maximization, critical line algorithm, group constraints, covariance and tail risk budgeting.

**Estimation of Errors and Robustness**
Robust covariance estimation, lower partial moments, Black Litterman approach, Principal Components and Factor Models, Complex Constraints.

**Scenario Optimization and General Risk Measures**
Addressing non-normality of asset returns, Value-at-Risk and expected shortfall risk, linear programming, mean-CVaR, MAD Minimum Regret and CVaR portfolios, reward risk ratios, non-linear programming.

**Portfolio Performance and Stability Analysis**
Performance measurement and attribution, benchmark statistics, rolling back testing, risk surfaces and risk profile lines, shape pictograms, stability analysis.

Course Audience:

This is a hands-on classroom training course for portfolio design, optimization, and stability analysis. It is well-suited to students, academics, as well as finance and risk managers who want to get to grips with the R/Rmetrics software environment.

* https://www.rmetrics.org/ebooks-portfolio
Diethelm Würtz et al., Portfolio Optimization with R/Rmetrics.
All participants will receive a free copy of the eBook.