IAN BUCKLEY, Centre for Quantitative Finance, Imperial College, London, UK
Portfolio optimization for alternative investments

(With Gustavo Comezana, Ben Djerroud and Luis Seco.)

A tractable and practical generalization to Markowitz mean-variance style portfolio theory is presented in which portfolios of hedge funds and commodity trading advisors (CTAs) can be handled successfully. Making the assumption that their returns have the finite Gaussian mixture distribution and using the probability of outperforming a target return as the objective function, these assets are optimized in the static setting by solving a non-linear programming problem to find portfolio weights.