

April 27, 2015  
KAP 414  
2:00 pm- 3:00

Prof. Kasper Larsen  
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“Facelifting in Utility Maximization”

**Abstract:** We establish the existence and characterization of a primal and a dual facelift - discontinuity of the value function at the terminal time - for utility-maximization in incomplete semimartingale-driven financial markets. Unlike in the lower- and upper-hedging problems, and somewhat unexpectedly, a facelift turns out to exist in utility-maximization despite strict convexity in the objective function. In addition to discussing our results in their natural, Markovian environment, we also use them to show that the dual optimizer cannot be found in the set of countably-additive (martingale) measures in a wide variety of situations.

Joint work with H.M. Soner and G. Žitković.