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Christoph Frei* (cfrei@ualberta.ca), University of Alberta, and Nicholas Westray, Imperial College London. Optimal execution in Hong Kong given a market-on-close benchmark.

For stocks traded on the Hong Kong Exchange, the median of five prices taken over the last minute of trading is currently chosen as the closing price. We introduce a stochastic control formulation to target such a median benchmark in an empirically justified model which takes the key microstructural features into account. We solve this problem by providing an explicit and efficient algorithm which even has applications beyond this talk as it can be used for the dynamic linear approximation of any square-integrable random variable. Implementing the algorithm on the stocks of the Hang Seng Index, we find an average improvement of around 6% in standard deviation of slippage compared to an average trader's execution. (Received February 15, 2016)