Robert Almgren, Quantitative Brokers and New York University

Title: Using a Market Simulator to Develop Execution Algorithms

Abstract: A market simulator is an essential tool for the development of high-frequency trading strategies. Many trading shops have such a tool, but the details are rarely presented publically. We will present the principles of constructing a simulator with especial emphasis on interest rates futures products, taking account of the special features of these markets such as pro rata matching, implied liquidity, and pricing signals. Comparison with actual trade executions lets us make a quantitative assessment of the validity of the simulator across a range of futures products.