(very preliminary and incomplete)

A Network Map of Information Percolation[1]

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Abstract

We measure information percolation in securities markets for a one-security-many-markets set-
ting. Applications range from over-the-counter dealer markets to centralized trading in securities
and their derivatives (broadly defined). The outcome is a network map with markets as vertices
and information flows as directional edges. The approach first removes pricing errors due to, for
example, liquidity trades. It then measures the information flow from A to B by the strength of
B's immediate response to A. To illustrate the approach we analyze information percolation in
normal-market conditions and flash crashes.