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Multiscale Shannon entropy and its application in the stock market

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The highlights of the paper are follows:

1. A new concept of the multi-scale Shannon entropy is proposed.
2. The DJIA is studied by the multi-scale entropy analyses.
3. The predictive power of the multi-scale entropy for DJIA are analyzed.
4. The useful information has predictive power for DJIA in the long-term.
5. The noise has predictive power for DJIA in the short-term.