

What is accomplished by successful non-stationary stochastic prediction?

Glenn Shafer, Rutgers University

In our 2001 book, *Probability and Finance: It's Only a Game!*, Vladimir Vovk and I showed how to test predictions, expressed as probabilities or as prices, by betting. In subsequent work, Vovk, Takemura, and I showed that in general a forecaster can pass the tests involved. These results suggest that good probabilistic predictions do not really say much about the future. This may cast some light on what engineers, economists, and speculators can accomplish using non-stationary stochastic models.