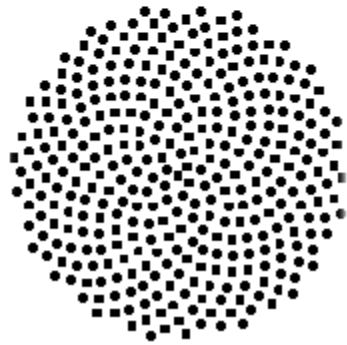


Renaissance Technologies Corp., a hedge fund family based in New York, is widely considered to be one of the most successful (and certainly the most secretive) hedge funds in the world. The company once maintained a comprehensive website at rentec.com, but that site has been withdrawn and replaced with a very minimal site. For a period of time, Internet archives of the old Renaissance site were available if you dug hard enough, but those are gone now too.

What we find most interesting about the former web site of Renaissance is its prominent featuring of the Fibonacci number series. Only a very naive person would assume that sophisticated quants like Renaissance achieved their success using the same kinds of Fibonacci methods (i.e., retracements and extensions) commonly used by technicians. However, that such a group of serious professionals would even bother to display the Fibonacci series on their corporate website at all, leads us to believe there is far more to the story.

Scroll down to see parts of the former Renaissance Technologies web site. Note left column illustrations on both page one and page two.

Renaissance Technologies makes markets more efficient



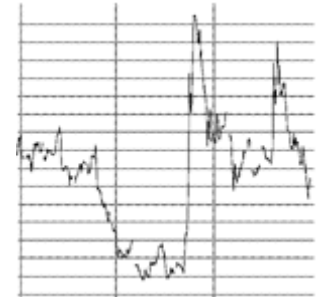
The arrangement of primordia in a sunflower is produced by separating points along the spiral by 137.5 degrees, the golden angle derivable from the Fibonacci series.

To discover tradable patterns in market fluctuations requires diligent study, keen insight and good judgment

Renaissance Technologies uses computer-based models to predict price changes in easily traded financial instruments. Our models are based on analyzing as much data as we can gather. We trade in markets around the world. As markets become more efficient, partly because of organizations like ours, we must have new insights and develop better and better models. Renaissance has a ten-year record of success and continues to grow. Look around this site to see if your skills and our needs are well matched.

- [> About Us](#)
- [> Careers](#)
- [> People](#)
- [> Quantitative Finance](#)

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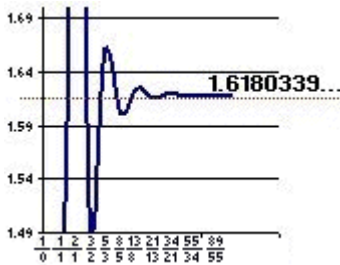
"To learn to resee the world in terms of its patterns requires a shift within us"

- Michael S. Schneider

If the markets are truly random...

"All the effects of nature are only the mathematical consequences of a small number of immutable laws"

- Pierre Simon de Laplace



The study of quantitative finance began with Louis Bachelier's 1900 Doctoral Thesis the *Theory of Speculation*. Louis was not appreciated even by his advisor Henri Poincaré. Andrew Lo and Craig MacKinlay in 1986 provided demonstrable evidence that stock prices could be predicted. If the market were fair then at any given moment the odds are 50-50 that the next tic of the stock price will be up or down. This is called the **random walk** or efficient market hypothesis. It assumes all the information is instantly available to all players. Since the price is an instantaneous reflection of news good or bad, no one can ever make money.

Yet some investment managers do make money. There is a paradox. If the market were truly efficient there would be no incentive for people to try to learn any new information. If no one is out there learning, how does information influence the market? The only answer then is to assume that the markets are not 100% informational efficient all the time. It takes work to discover profitable information and you get paid for that work.

One of the mathematical concepts that had usefulness at one time was momentum trading. The stock price when started upward will tend to go upward for some period of time. Computers can be used to write and try very sophisticated algorithms to define the points of inflection in these oscillations.

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