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**Stock Market Crashes and Skipped Heartbeats: Complex Systems Follow Universal Rules**

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Stock market gyrations and heartbeat anomalies are not entirely random. They follow universal rules that physicists can understand. I will discuss some of these rules in a variety of complex systems, including social and computer networks, and the coding in DNA molecules. One theme is that extreme but rare events like stock market crashes are not entirely unexpected but fit quite normally into the proper statistical framework.