

## **Zooming into complex financial markets using data science**

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Financial markets, being spectacular examples of complex systems, display rich correlation structures among price returns of different assets. The correlation structures change drastically, akin to critical phenomena in physics, as do the influential stocks (leaders) and sectors (communities), during market events like crashes. Using the approaches of data science, we present the results for a few generic indicators that monitor the dynamics and internal structures of the market—important for managing risk and foreseeing tipping points of complex financial systems.