Harnessing quantitative finance by deep learning

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Deep learning is currently making headway in the realm of quantitative finance, whilst the financial industry is increasingly embracing data-driven workflows powered by machine learning and data science. In this minicourse, we shall present some of the recent advances of deep learning applied to quantitative finance. After a brief introduction to the basic principles of deep learning, we will explain how it can be applied to derivatives pricing, hedging and market data simulation in a novel way. We will demonstrate these methods by extensive numerical examples.