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Nuclear Physicists in Finance

CARLO MATTONI, QVT Financial LP

The financial services industry presents an interesting alternative career path for nuclear physicists. Careers in finance typically offer intellectual challenge, a fast pace, high caliber colleagues, merit-based compensation with substantial upside, and an opportunity to deploy skills learned as a physicist. Physicists are employed at a wide range of financial institutions on both the buy side (hedge fund managers, private equity managers, mutual fund managers, etc.) and the sell side (investment banks and brokerages). Historically, physicists in finance were primarily quants tasked with applying stochastic calculus to determine the price of financial derivatives. With the maturation of the field of derivative pricing, physicists in finance today find work in a variety of roles ranging from quantification and management of risk to investment analysis to development of sophisticated software used to price, trade, and risk manage securities. Only a small subset of today's finance careers for physicists require the use of advanced math and practically none provide an opportunity to tinker with an apparatus, yet most nevertheless draw on important skills honed during the training of a nuclear physicist. Intellectually rigorous critical thinking, sophisticated problem solving, an attention to minute detail and an ability to create and test hypotheses based on incomplete information are key to both disciplines.