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Nota di contenuto	1. Introduction -- 2. Market framework. 2.1. Studied quantities. 2.2. The question of time -- 3. Statistical description of markets. 3.1. Construction of a representation. 3.2. Normality tests. 3.3. Discontinuity test. 3.4. Continuity test. 3.5. Testing the finiteness of the activity -- 4. Levy processes. 4.1. Definitions and construction. 4.2. The Levy-Khintchine formula. 4.3. The moments of Levy processes of finite variation -- 5. Stable distributions and processes. 5.1. Definitions and properties. 5.2. Stable financial models -- 6. Laplace distributions and processes. 6.1. The first Laplace distribution. 6.2. The asymmetrization of the Laplace distribution. 6.3. The Laplace distribution as the limit of hyperbolic distributions -- 7. The time change framework. 7.1. Time changes. 7.2. Subordinated Brownian motions. 7.3. Time-changed Laplace process -- 8. Tail distributions. 8.1. Largest values approach. 8.2. Threshold approach. 8.3. Statistical phenomenon approach. 8.4. Estimation of the shape parameter -- 9. Risk budgets. 9.1. Risk measures. 9.2. Computation of risk budgets -- 10. The psychology of risk -- 10.1. Basic principles of the psychology of risk. 10.2. The measurement of risk aversion. 10.3. Typology of risk aversion -- 11. Monoperiodic portfolio choice. 11.1. The optimization program. 11.2. Optimizing with two moments. 11.3. Optimizing with

three moments. 11.4. Optimizing with four moments. 11.5. Other problems -- 12. Dynamic portfolio choice. 12.1. The optimization program. 12.2. Classic approach. 12.3. Optimization in the presence of jumps -- 13. Conclusion.

Sommario/riassunto

Each financial crisis calls for - by its novelty and the mechanisms it shares with preceding crises - appropriate means to analyze financial risks. In Extreme Financial Risks and Asset Allocation, the authors present in an accessible and timely manner the concepts, methods, and techniques that are essential for an understanding of these risks in an environment where asset prices are subject to sudden, rough, and unpredictable changes. These phenomena, mathematically known as "jumps", play an important role in practice. Their quantitative treatment is generally tricky and is sparsely tackled in similar books. One of the main appeals of this book lies in its approachable and concise presentation of the ad hoc mathematical tools without sacrificing the necessary rigor and precision. This book contains theories and methods which are usually found in highly technical mathematics books or in scattered, often very recent, research articles. It is a remarkable pedagogical work that makes these difficult results accessible to a large readership. Researchers, Masters and PhD students, and financial engineers alike will find this book highly useful.