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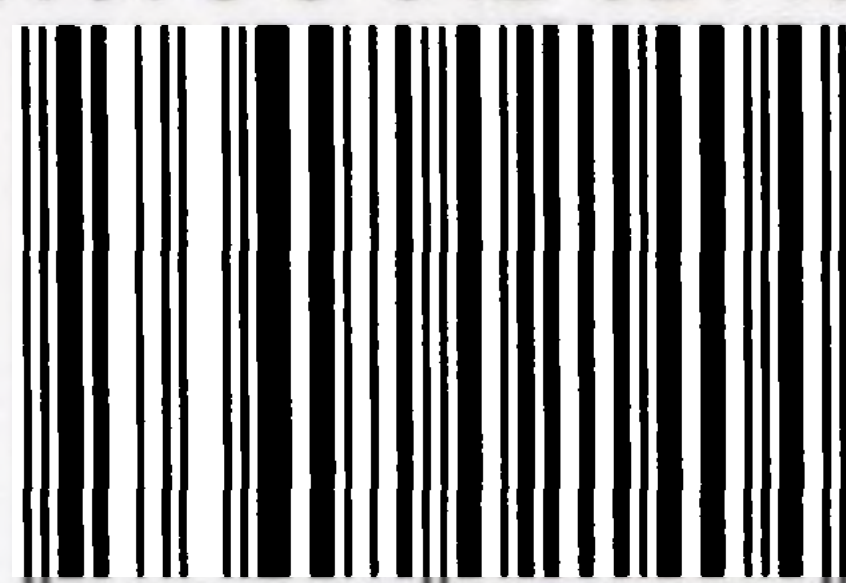ftp://ftp.springer.de/pub/tex/latex/svmultt1/ (for summer schools/tutorials).

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Stable Lévy processes and related stochastic processes play an important role in stochastic modelling in applied sciences, in particular in financial mathematics. This book is about the potential theory of stable stochastic processes. It also deals with related topics, such as the subordinate Brownian motions (including the relativistic process) and Feynman–Kac semigroups generated by certain Schroedinger operators. The authors focus on classes of stable and related processes that contain the Brownian motion as a special case. This is the first book devoted to the probabilistic potential theory of stable stochastic processes, and, from the analytical point of view, of the fractional Laplacian. The introduction is accessible to non-specialists and provides a general presentation of the fundamental objects of the theory. Besides recent and deep scientific results the book also provides a didactic approach to its topic, as all chapters have been tested on a wide audience, including young mathematicians at a CNRS/HARP Workshop, Angers 2006. The reader will gain insight into the modern theory of stable and related processes and their potential analysis with a theoretical motivation for the study of their fine properties.