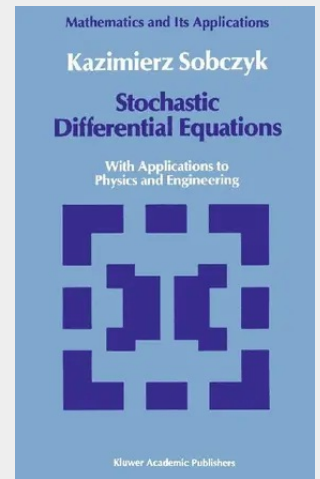


Stochastic Differential Equations

With Applications to Physics and Engineering

'Et moi, ~ si lavait su CO.IIUIJalt en revc:nir, One acMcc matbmcatica bu Jaldcred the human rac:c. It bu put COIDIDOD _ beet je n'y serais point aBe.' Jules Verne wbac it bdoup, OJl !be~ lbcII _t to !be dusty caualcr labc&d 'diMardod__ The series is divergent; thc:reforc we may be -. II.ticT. Bc:I1 able to do something with it. O. Hcavisidc Mathematics is a tool for thought. A highly necessary tool in a world when: both feedback and non linearities abound. Similarly. all kinds of parts of mathematics serve as tools for other parts and for other sciences. Applying a simple rewriting rule to the quote on the right above one finds such statcmalts as: 'One service topology has rendered mathematical physics.:' 'One service logic has rendered c0m puter science.:' 'One service category theory has rendered mathematics.'. All arguably true. And all statements obtainable this way form part of the raison d'etre of this series. This series, Mathematics and Its Applications. started in 19n. Now that over one hundred volumes have appeared it seems opportune to reexamine its scope. At the time I wrote "Growing specialization and diversification have brought a host of monographs and textbooks on increasingly specialized topics. However. the 'tree' of knowledge of mathematics and related fields does not grow only by putting forth new branc:hes. It also happens, quite often in fact, that branches which were thought to be completely.

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