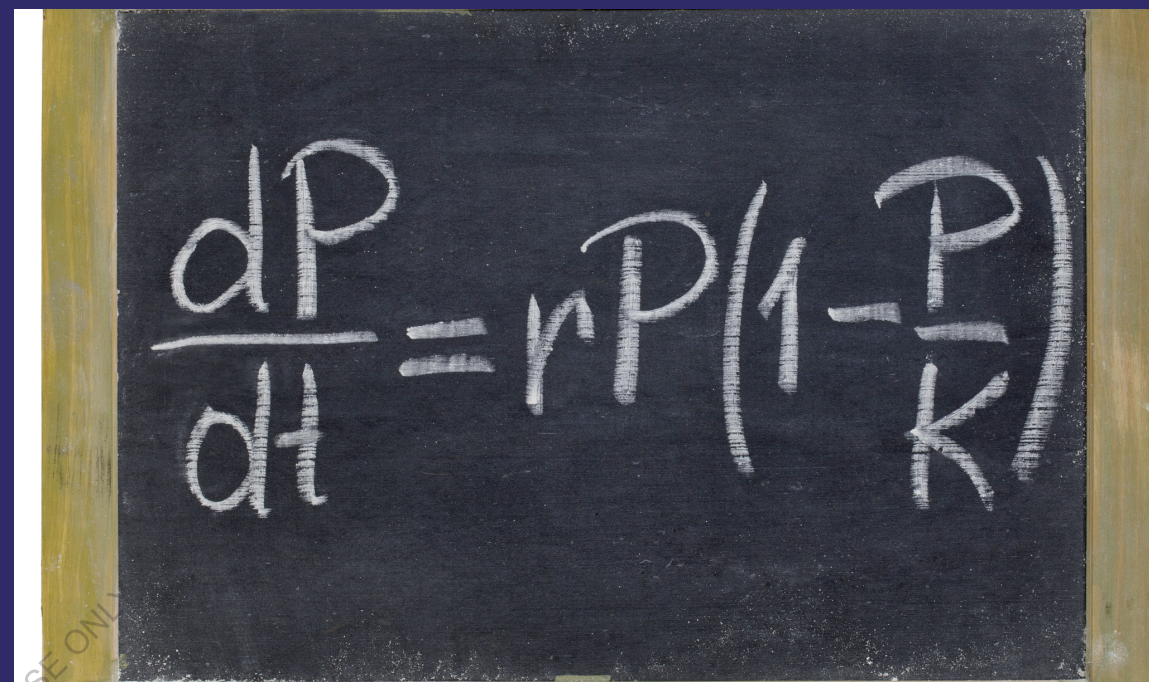


This book contains three essays in economic theory: "Myerson-Satterthwaite theorem and asymmetric auctions", "Auction theory and a note on game mechanisms", and the third essay entitled "Review of the binomial and trinomial models for option pricing and their convergence to the Black-Scholes model determined option prices". In each of these essays mathematical statistics, alongside numerical optimizations has been used to prove theorems in microeconomics.

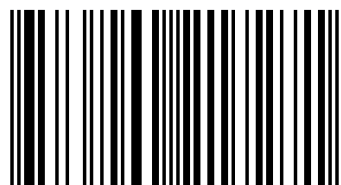

$$\frac{dP}{dt} = rP\left(1 - \frac{P}{K}\right)$$



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978-620-0-21727-1

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17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page

ISBN: 978-620-0-21727-1

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