NPTEL Video Course - Mathematics - NOC:Probabilistic Methods in PDE

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Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

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Lecture 32 - Remark on Tychonoff's Theorem
Lecture 33 - Widderâ s result and its extension on heat equation
Lecture 34 - Solution to the mixed initial boundary value problemÂ
Lecture 35 - The Feynman-Kac formulaÂ
Lecture 36 - Kacâ s theorem on the stochastic representation of solution to a second-order linear ODE - Part
Lecture 37 - Kacâ s theorem on the stochastic representation of solution to a second-order linear ODE - Part
Lecture 38 - Geometric Brownian motion
Lecture 39 - A system of stochastic differential equations in application
Lecture 40 - Brownian bridge
Lecture 41 - Simulation of stochastic differential equations
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Lecture 47 - Functional Stochastic Differential Equations
Lecture 48 - Statement of Dirichlet and Cauchy problems with variable coefficients elliptic operators
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Lecture 50 - Cauchy Problem with variable coefficients
Lecture 51 - Semigroup of bounded linear operators on Banach space - Part 1
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Lecture 54 - Unique semigroup generated by a bounded linear operator
Lecture 55 - Homogeneous initial value problem
Lecture 56 - Mild solution to homogeneous initial value problem
Lecture 57 - Mild solution to inhomogeneous initial value problem
Lecture 58 - Sufficient condition for existence of classical solution of IVP
Lecture 59 - Tutorial on Resolvant operator
Lecture 60 - Feynman-Kac formula and the formula of variations of constants
Lecture 61 - Non-autonomous evolution problem and mild/generalized solution
Lecture 62 - Sufficient condition for existence of an evolution system
Lecture 63 - Y-valued solution
Lecture 64 - mild/generalized solution to Semi-linear Evolution Problem
Lecture 65 - Existence of classical solution - Part 1
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