The Department of Mathematics
2020–21–B term

Course Name Integral Transforms and Partial Differential Equations
Course Number 201.1.0291

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Office Hours https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading

Course topics

1. The Fourier transform: convolutions, the inversion formula, Plancherel’s theorem, Hermite functions, tempered distributions. The Poisson summation formula. The Fourier transform in R^n.


3. Classification of the second order PDE: elliptic, hyperbolic and parabolic equations, examples of Laplace, Wave and Heat equations.

4. Elliptic equations: Laplace and Poisson equations, Dirichlet and Neumann boundary value problems, Poisson kernel, Green’s functions, properties of harmonic functions, Maximum principle

Information may change during the first two weeks of the term. Please consult the webpage for updates

Bibliography


