

Lecture 4: Probability Measure on Infinite Product Space

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1 Infinite Product Spaces and the Kolmogorov Extension Theorem

1.1 Product σ -Algebra

1.2 Pre-measures and Hahn-Kolmogorov Theorem

1.3 Kolmogorov Extension Theorem

2 Lebesgue-Stieltjes Measure

2.1 Existence of Lebesgue-Stieltjes Measure

2.2 Regularity

2.3 Lebesgue-Stieltjes Integration

2.4 Connection with Riemann-Stieltjes Integration

References