NPTEL Video Course - Mathematics - NOC:Introduction to Algebraic Topology - Part I

Subject Co-ordinator - Prof. Anant R. Shastri

Co-ordinating Institute - IIT - Bombay

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

Lecture 30 - Polyhedrons
Lecture 31 - Point Set topological Aspects
Lecture 32 - Barycentric Subdivision
Lecture 33 - Finer Subdivisions
Lecture 34 - Simplical Approximation
Lecture 35 - Sperner Lemma
Lecture 36 - Invariance of domain
Lecture 37 - Proof of controled homotopy
Lecture 38 - Links and Stars
Lecture 39 - Homotopical Aspects of Simplicial Complexes
Lecture 40 - Homotopical Aspects
Lecture 41 - Covering Spaces and Fund. Groups
Lecture 42 - Lifting Properties
Lecture 43 - Homotopy Lifting
Lecture 44 - Relation with the fund. Group
Lecture 45 - Regular covering
Lecture 46 - Lifting Problem
Lecture 47 - Classification of Coverings
Lecture 48 - Classification
Lecture 49 - Existence of Simply connected coverings
Lecture 50 - Construction of Simply connected covering
Lecture 51 - Properties Shared by total space and base
Lecture 52 - Examples
Lecture 53 - G-coverings
Lecture 54 - Pull-backs
Lecture 55 - Classification of G-coverings
Lecture 56 - Proof of classification
Lecture 57 - Pushouts and Free products
Lecture 58 - Existence of Free Products, pushouts
Lecture 59 - Free Products and free groups
Lecture 60 - Seifert-Van Kampen Theorems
Lecture 61 - Applications
Lecture 62 - Applications (Continued...)