

MATH 424

Galois Theory of Linear Differential Equations

METU Mathematics Department

Titles of Videos:

- 1) Math 424-1: Introduction and Topological spaces, definitions and examples
- 2) Math 424-2: Continuous maps, base of a topology, comparison of topologies-1
- 3) Math 424-3: Continuous maps, base of a topology, comparison of topologies-2
- 4) Math 424-4: Product and Quotient Topologies-1
- 5) Math 424-5: Quotient Topologies-2
- 6) Math 424-6: Identification Spaces, Surfaces and Definition of Homotopy, Rotation Number of an Immersion-1
- 7) Math 424-7: Rotation Number of an Immersion-2
- 8) Math 424-8: Free Groups and Group Presentations-1
- 9) Math 424-9: Free Groups and Group Presentations-2, Definition of Fundamental Group-1
- 10) Math 424-10: Definition of Fundamental Group-2
- 11) Math 424-11: Definition of Fundamental Group-3 and Some Examples
- 12) Math 424-12: Definition of Covering Spaces and Some Examples
- 13) Math 424-13: Fundamental Group of the Circle-1
- 14) Math 424-14: Fundamental Group of the Circle-2
- 15) Math 424-15: Lifting Properties of Covering Spaces-1
- 16) Math 424-16: Lifting Properties of Covering Spaces-2
- 17) Math 424-17: Lifting Properties of Covering Spaces-3
- 18) Math 424-18: Induced Homomorphisms and An Application: Retractions
- 19) Math 424-19: Independence of Basepoint and Simply Connectedness
- 20) Math 424-20: Independence of Base Point, Homotopy Equivalence
- 21) Math 424-21: Product Spaces, Fundamental Groups of Spheres
- 22) Math 424-22: Seifert – Van Kampen Theorem
- 23) Math 424-23: Classification of Covering Spaces-1
- 24) Math 424-24: Classification of Covering Spaces-2
- 25) Math 424-25: Classification of Covering Spaces-3
- 26) Math 424-26: Classification of Covering Spaces-4
- 27) Math 424-27: Classification of Covering Spaces-5
- 28) Math 424-28: Classification of Covering Spaces-6
- 29) Math 424-29: Classification of Covering Spaces-7, Functions on Covering Spaces-1
- 30) Math 424-30: Functions on Covering Spaces-2
- 31) Math 424-31: Differential Equations on Covering Spaces-1.a
- 32) Math 424-32: Differential Equations on Covering Spaces-1.b
- 33) Math 424-33: Differential Equations on Covering Spaces-2
- 34) Math 424-34: Differential Equations on Covering Spaces-3
- 35) Math 424-35: Differential Equations on Covering Spaces-4
- 36) Math 424-36: Differential Equations on Covering Spaces-5

37) Math 424-37: Differential Equations on Covering Spaces-6