

## Algebraic and Topological K-Topology

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I. Topological vector bundles, tangent bundles, normal bundles, topological K-theory, Bott Periodicity, Atiyah-Hirzebruch spectral sequence, Chern classes, Todd classes, baby topological Riemann-Roch Theorem

II. Algebraic K-theory of rings:  $K_0$ ,  $K_1$ , Quillen's definition of higher K-theory via the plus construction

III. Quick intro to Algebraic Geometry

IV. Algebraic K-theory of varieties, Riemann-Roch theorem for complex varieties a la Baum-Fulton-MacPherson