Advanced Linear Algebra

MAT3040 Notebook

Course Synopsis –

- Elementary Theory of Linear Transformations: Basis, Dimension, Linear Transformation, Matrix Representation, Quotient Spaces, First Isomorphism Theorem, Dual Space, Annihilators, Adjoint Map;
- Eigenvectors and Eigenvalues: the Characteristic Polynomial, Minimal Polynomial, Cayley-Hamiton Theorem, Primary Decomposition Theorem, Spectral Decomposition Theorem, Jordan Normal Form, Normal Operator;
- Introduction to Tensor Product: Basis for Tensor Product, Universal Property, Tensor Product for Linear Transformations, Multi-linear Tensor Product, Exterior Power

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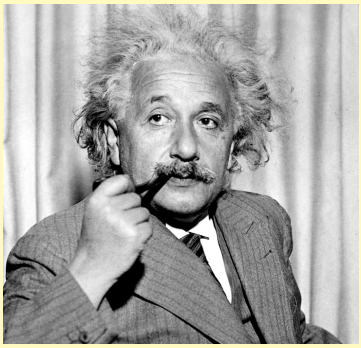

WalterBabyRudin is a person who writes this book using LaTeX. He is interested in Mathematics. Recently he is working on Information Theory and Graph Theory. You can contact with him on these fields. But he is very carelessness. If you find some typos in this book, don't hesitate to ask him directly. Hope you enjoy the journey to Math!

MathPi

Club