

Notes of Advanced Quantum Mechanics

Taper

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Abstract

Notes of the course Advanced Quantum Mechanics, told by professor MH. Wang.

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	Evaluation	
1.	Homework 20%	
	5% bonus for solution based on L ^A T _E X, other bonus available.	
2.	Mid-term 30%	
3.	Final 50 %	

Textbook: Griffiths or Sakurai. As a reference, this course will cover chapter 1, 2, 4, and 7 of Sakurai's book. And if time permits, chapter 8 about the Relativistic Quantum Mechanics in chapter 8. Since the average level of the course is not high, He seems to hold negative view towards this goal.

First two lessons are for the layman, which are not included in this note.

1 Skipped Several Lecture

Since there is nothing interesting.

2 20161102

Definition 2.1 (Trace of Operator).

$$\text{Tr } X = \sum_n \langle n | X | n \rangle \quad (2.0.1)$$

Fact 2.1.

$$\text{Tr}(|\alpha\rangle\langle\beta|) = \langle\beta|\alpha\rangle \quad (2.0.2)$$

Although this is quite simple to prove, this is quite interesting a result.

3 Anchor

References

[1] Modern Quantum Mechanics. Sakurai.

4 License

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