

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 435

LECTURE 1

1.1. THE CLASSICAL LIMIT

1.2. QUANTUM MECHANICS

1.3. THE SCHRODINGER EQUATION

1.4. THE HEISENBERG UNCERTAINTY PRINCIPLE

1.5. THE DIRAC EQUATION

1.6. THE PAULI EXCLUSION PRINCIPLE

1.7. THE SPIN-ORBIT INTERACTION

1.8. THE FINITE POTENTIAL WELL

1.9. THE HARMONIC OSCILLATOR

1.10. THE HYDROGEN ATOM

1.11. THE ADDITION OF ANGULAR MOMENTUM

1.12. THE ADDITION OF SPIN

1.13. THE ADDITION OF ORBITAL ANGULAR MOMENTUM

1.14. THE ADDITION OF SPIN ANGULAR MOMENTUM

1.15. THE ADDITION OF TOTAL ANGULAR MOMENTUM

1.16. THE ADDITION OF SPIN AND ORBITAL ANGULAR MOMENTUM

1.17. THE ADDITION OF SPIN AND ORBITAL ANGULAR MOMENTUM

1.18. THE ADDITION OF SPIN AND ORBITAL ANGULAR MOMENTUM

1.19. THE ADDITION OF SPIN AND ORBITAL ANGULAR MOMENTUM

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1.25. THE ADDITION OF SPIN AND ORBITAL ANGULAR MOMENTUM