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Autore	Landau L D
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24. Motion in a homogeneous field25. The transmission coefficient; CHAPTER IV. ANGULAR MOMENTUM; 26. Angular momentum; 27. Eigenvalues of the angular momentum; 28. Eigenfunctions of the angular momentum; 29. Matrix elements of vectors; 30. Parity of a state; 31. Addition of angular momenta; CHAPTER V. MOTION IN A CENTRALLY SYMMETRIC FIELD; 32. Motion in a centrally symmetric field; 33. Spherical waves; 34. Resolution of a plane wave; 35. Fall of a particle to the centre; 36. Motion in a Coulomb field (spherical polar coordinates)

37. Motion in a Coulomb field (parabolic coordinates)CHAPTER VI. PERTURBATION THEORY; 38. Perturbations independent of time; 39. The secular equation; 40. Perturbations depending on time; 41. Transitions under a perturbation acting for a finite time; 42. Transitions under the action of a periodic perturbation; 43. Transitions in the continuous spectrum; 44. The uncertainty relation for energy; 45. Potential energy as a perturbation; CHAPTER VII. THE QUASI-CLASSICAL CASE; 46. The wave function in the quasi-classical case; 47. Boundary conditions in the quasi-classical case

48. Bohr and Sommerfeld's quantization rule49. Quasi-classical motion in a centrally symmetric field; 50. Penetration through a potential barrier; 51. Calculation of the quasi-classical matrix elements; 52. The transition probability in the quasi-classical case; 53. Transitions under the action of adiabatic perturbations; CHAPTER VIII. SPIN; 54. Spin; 55. The spin operator; 56. Spinors; 57. The wave functions of particles with arbitrary spin; 58. The operator of finite rotations; 59. Partial polarization of particles; 60. Time reversal and Kramers' theorem

CHAPTER IX. IDENTITY OF PARTICLES

Sommario/riassunto

This edition has been completely revised to include some 20% of new material. Important recent developments such as the theory of Regge poles are now included. Many problems with solutions have been added to those already contained in the book.
