

# Wave Equations In Higher Dimensions

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13. Dirac equation with Coulomb potential (Introduction; Exact solutions of hydrogen-like atoms; Analysis of eigenvalues; Generalization to the Dirac equation with Coulomb potential plus scalar potential; Concluding remarks).- 14. Klein-Gordon equation with Coulomb potential (Introduction; Eigenfunctions and eigenvalues; Analysis of eigenvalues; Generalization: Klein-Gordon equation with Coulomb plus scalar potential; Comparison theorem; Conclusions).- 15. Levinson theorem for Dirac equation (Introduction; Generalization Sturm-Liouville theorem; Number of bound states; Relativistic Levinson theorem; Discussions; Friedel Theorem; Comparison theorem; Conclusions).- 16. Generalized hypervirial theorem for Dirac equation (Introduction; Relativistic recurrence relation; Diagonal case; Conclusions).- 17. Kaluza-Klein theory (Introduction; (4+D) -dimensional Kaluza-Klein theories; Particle spectrum of Kaluza-Klein theories for fermions; Warped extra dimensions; Conclusions).- PART V (Conclusions and Outlooks).- 18. Conclusions and outlooks.- Appendices.- References.- Index. EAN/ISBN : 9789400719170 Publisher(s): Springer, Berlin, Springer Science & Business Media Discussed keywords: Quantentheorie Format: ePub/PDF Author(s): Dong, Shi-Hai

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