DOWNLOAD PDF P-ADIC VALUED DISTRIBUTIONS IN MATHEMATICAL PHYSICS

Chapter 1 : CiteSeerX â€” Citation Query www.nxgvision.com Khrennikov, p-adic valued distributions in ma

equations of the non-Archimedean valued mathematical physics such as heat, Schrodinger's, Heisenberg's and Liouville's equations are inÂ- vestigated in spaces of test functions and distributions (generalized.

Nardelli, "On the link between the structure of A-branes observed in homological mirror symmetry and the classical theory of automorphic forms. In the Section 1, we have described some equations concerning the pure three-dimensional quantum gravity with a negative cosmological constant and the pure three-dimensional supergravity partition functions. In the Section 2, we have described some equations concerning the Selberg super-trace formula for Super-Riemann surfaces, some analytic properties of Selberg super zeta-functions and multiloop contributions for the fermionic strings. In the Section 3, we have described some equations concerning the ten-dimensional anomaly cancellations and the vanishing of cosmological constant. In the Section 4, we have described some equations concerning p-adic strings, p-adic and adelic zeta functions and zeta strings. In conclusion, in the Section 5, we have described the possible and very interesting mathematical connections obtained between some equations regarding the various sections and some sectors of number t heory Riemann zeta functions, Ramanujan modular equations, etc Furthermore, we describe the mathematical connections with some sectors of String Theory p-adic and adelic strings, p-adic cosmology and Number Theory. In the Section 3, we have described some very recent mathematical results concerning the adeles and ideles groups applied to various formulae regarding the Riemann zeta function and the Selberg trace formula connected with the Selberg zeta function , hence, we have obtained some new connections applying these results to the adelic strings and zeta strings. In the Section 4 we have described some equations concerning p-adic strings, p-adic and adelic zeta functions, zeta strings and p-adic cosmology with regard the p-adic cosmology, some equations concerning a general class of cosmological models driven by a nonlocal scalar field inspired by string field theories. In conclusion, in the Section 5, we have showed various and interesting mathematical connections between some equations concerning the Section 1, 3 and 4. The eigenfunctions depend, in general, by the coordinates of all the electrons. However, a diagram effective and enough in many cases, we can get considering the individual eigenfunctions for individual electrons, imagining that each of them is isolated in an appropriate potential field that represent the action of the nucleus and of other electrons. From these individual eigenfunctions we can to obtain the eigenfunction of the quantum state of the atom, forming the antisymmetrical products of eigenfunctions of the individual quantum states involved in the configuration considered. The problem, with this diagram, is the calculation of the eigenfunctions and eigenvalues of individual electrons of each atomic species. To research of potential it is possible proceed with varying degrees of approximation: This method has the advantage of a great simplicity as that, through a single function numerically calculated once and for all, it is possible to represent the behaviour of all atoms. In this work Sections 1 and 2 we give the preference to the statistical method, because in any case it provides the basis for more approximate numerical calculations. In Section 1 we have described some equations concerning cosmic evolution in a Cyclic Universe. In the Section 5, we have described some equations concerning the approximateinflationary solutions rolling away from the unstable maximum of p-adic string theory. In the Section 6, we have described various equations concerning the p-adic minisuperspace model, zeta strings, zeta nonlocal scalar fields and p-adic and adelic quantum cosmology. In the Section 7, we have showed various and interesting mathematical connections between some equations concerning the p-adic Inflation, the p-adic quantum cosmology, the zeta strings and the brane collisions in string and M-theory. In Section 1, we have described some equations and theorems concerning the quadrature- and mean-convergence in the Lagrange interpolation. In Section 2, we have described some equations and theorems concerning the difference sets of sequences of integers. In Section 3, we have showed some equations and theorems regarding some problems of a statistical group theory symmetric groups and in Section 4, we have showed some equations and theorems concerning the measure of the non-monotonicity of the Euler phi function and the related Riemann zeta

function. In Section 5, we have showed some equations concerning the p-adic and adelic strings, the zeta strings and the Lagrangians for adelic strings In conclusion, in Section 6, we have described the mathematical connections concerning the various sections previously analyzed. Principally, in Section 3, where is frequently used the Hardy-Ramanujan stronger asymptotic formula and are described some theorems concerning the prime numbers. With regard Section 4, we have obtained some mathematical connections between some equations concerning the Euler phi function, the related Riemann zeta function and the zeta strings and field Lagrangians for p-adic sector of adelic string Section 5. Furthermore, in Sections 1, 2, 3 and 4, we have described also various mathematical expressions regarding some frequency connected with the exponents of the Aurea ratio, i. We consider important remember that the number 7 of the various exponents is related to the compactified dimensions of M-theory. In Section 2, we have described some equations concerning the modifications to the Boltzmann equation governing the cosmic evolution of relic abundances induced by dilaton dissipative-source and non-critical-string terms in dilaton-driven non-equilibrium string cosmologies. In Section 3, we have described some equations concerning the entropy of an eternal Schwarzschild black hole in the limit of infinite black hole mass, from the point of view of both canonical quantum gravity and superstring theory. We have described some equations regarding the quantum corrections to black hole entropy in string theory. Furthermore, in this section, we have described some equations concerning the thesis "Can the Universe create itself? In Section 4, we have described some equations concerning p-Adic models in Hartle-Hawking proposal and p-Adic and Adelic wave functions of the Universe. In this Section, we have described also some equations concerning a transformation formula involving the gamma and Riemann zeta functions of Ramanujan. In Section 3, we have described some equations concerning the zeta strings and the zeta nonlocal scalar fields.

Chapter 2 : A limit theorem for p-adic-valued probability distributions - IOPscience

But recently new models of the quantum physics were proposed on the basis of p-adic numbers field Qp. What are p-adic numbers, p-adic analysis, p-adic physics, p-adic probability? p-adic numbers were introduced by K. Hensel () in connection with problems of the pure theory of numbers.

Chapter 3 : Arriola , Beyer : Stability of the Cauchy functional equation over p-adic fields.

For instance, Bohm's theory[5,6]explains contextuality by direct influences of the context on the outcomes of measurements through a quantum potential.

Chapter 4 : On p-Adic Mathematical Physics - INSPIRE-HEP

P-Adic Valued Distributions in Mathematical Physics. [Andrei Khrennikov] -- This book is devoted to the study of non-Archimedean, and especially p-adic mathematical physics. Basic questions about the nature and possible applications of such a theory are investigated.