Примери на по-съществени цитати

Цитати в Абстракти

1. J. Polchinski, *Order parameters in a modified lattice gauge theory*, Phys.Rev. D 25 (1982) 3325. [**Ref. 11.**]

Abstract

Mack and Petkova and Yaffe have recently considered a modified lattice gauge theory, in which the 't Hooft operator has an unexpected area law and is not complementary to the Wilson loop operator. ...

2. G. Lazarides, S. Sarantakos, *Non-Abelian magnetic flux at high temperatures*, Phys.Rev. D 31 (1985) 389. [**Ref. 11**]

Abstract

We study by Monte Carlo methods the behavior of non-Abelian magnetic fields at high temperatures in the **Mack-Petkova** modified SU(2) lattice gauge theory which does not contain dynamical magnetic monopoles....

3. J.L. Petersen, J. Rasmussen, M. Yu, *Free field realization of SL(2) correlators for admissible representations and hamiltonian reduction for correlators*, Nucl.Phys.Proc.Suppl. 49 (1996) 27-34, hep-th/9512175. **Ref. [30, 31, 32]**

Abstract

... We derive explicit integral representations of N-point conformal blocks. We show that they satisfy the Knizhnik - Zamolodchikov equations and we prove how they are related to minimal conformal blocks via a formulation of Hamiltonian reduction advocated by **Furlan, Ganchev, Paunov and Petkova.**

4. J. Bockenhauer, D.E. Evans, *Modular Invariants, Graphs and α-Induction for Nets of Subfactors II*, Commun.Math.Phys. 200 (1999) 57-103, hep-th/9805023. [**Ref. 37, C12.**]

Abstract

... Developing further some ideas of F. Xu, our treatment leads canonically to certain fusion graphs, and in all our examples we rediscover the graphs Di Francesco, **Petkova and Zuber** associated empirically to the corresponding SU(n) modular invariants. ..

5. C. H. Otto Chui, Christian Mercat, Will Orrick, Paul A. Pearce, *Integrable Lattice Realizations of Conformal Twisted Boundary Conditions*, Phys.Lett. B517 (2001) 429-435, hep-th/0106182, [**Ref. 45, 46**]

Abstract

... These conformal field theories are realized as the continuum scaling limit of critical ADE lattice models with positive spectral parameter. ... these are identified with conformal twisted boundary conditions of **Petkova and Zuber.**.. associated with nodes of the minimal analog of the Ocneanu quantum graph....

6. C.H. Otto Chui, Christian Mercat, Paul A. Pearce, *Integrable and Conformal Twisted Boundary Conditions for sl(2) A-D-E Lattice Models*, J.Phys. A36 (2003) 2623-2662, hep-th/021030 [**Ref. 45, 46**]

Abstract

We study integrable realizations of conformal twisted boundary conditions for s?(2) unitary minimal models on a torus. ... Identifying our construction labels with the conformal labels of **Petkova and Zuber**, we find that the integrable seams are in one-to-one correspondence with the conformal seams. ...

7. V. A. Fateev and A. V. Litvinov, *Coulomb Integrals in Liouville Theory and Liouville Gravity*, JETP Letters, 2006, Vol. 84, No. 10, pp. 531 - 536, [**Ref. 48**].

Abstract

... In particular, a four-point correlation function has been calculated in minimal quantum gravity. The result agrees with the results obtained recently by different methods [A. A. Belavin and A. B. Zamolodchikov, JETP Lett. 82, 7 (2005); Theor. Math. Phys. 147, 729 (2006); A. B. Zamolodchikov, Theor. Math. Phys. 142, 183 (2005); **I. K. Kostov and V. B. Petkova**, Theor. Math. Phys. 146, 108 (2006)].

8. G. Giribet, *On the timelike Liouville three-point function*, Phys. Rev. D 85 (2012) 086009, arXiv:1110.6118 [**Ref. 48, 49, 50**]

Abstract

In a recent paper, Harlow, Maltz, and Witten showed that a particular proposal for the timelike Liouville three-point function, originally due to Zamolodchikov and to **Kostov and Petkova**, can actually be computed by the original Liouville path integral evaluated on a new integration cycle.... .

9. M. Ang, X. Sun,, *Integrability of the conformal loop ensemble*, arXiv:2107.01788 (2021), [**Ref. 49**]

Abstract

We demonstrate that the conformal loop ensemble (CLE) has a rich integrable structure by establishing exact formulas for two CLE observables. The first describes the joint moments of the conformal radii of loops surrounding three points for CLE on the sphere. Up to normalization, our formula agrees with the imaginary DOZZ formula due to Zamolodchikov (2005) and **Kostov-Petkova** (2007), which is the three-point structure constant of certain conformal field theories that generalize the minimal models. ...

10. Jie Jun Ang, *Integrability in random conformal geometry*, **PhD thesis** (2022), Dept. of Math, MIT, USA. [**Ref. 49**]

Abstract

....We derive the three-point nesting statistic of simple CLE on the sphere. It agrees with the imaginary DOZZ formula of Zamolodchikov (2005) and **Kostov-Petkova** (2007), which is the three-point structure constant of the generalized minimal model conformal field theories. ...

Цитати във въведение и текст

S. Sarantakos, *Topics on Gauge Theories*, **PhD** thesis (1984), New York University [**Ref. 11**]

Abstract of Section (A)

In this section of my thesis I studied by Monte Carlo methods the behaviour of non-abelian magnetic fields at high temperatures in the **Mack and Petkova** modified SU(2) lattice gauge theory which does not contain Z_2-magnetic monopoles...

L.G. Yaffe, *Confinement in $SU(N)$ lattice gauge theories*, Phys. Rev. D 21 (1980) 1574.

Introduction

...This paper was largely motivated by recent work of **Mack and Petkova**[7−9] and can be considered as an extension of their results.... In their second paper **Mack and Petkova** found a simple bound on the expectation of the Wilson loop base on the behavior of "thick vortices" [8]. We use essentially the same procedure in Sec. IV in order to relate the behavior of the Wilson loop to the properties of magnetic flux. ...Finally in a third paper **Mack and Petkova** discussed how the standard SU(2) could be interpreted as a $Z(2)$ gauge theory with fluctuating coupling constants in the presence of magnetic monopolesproduced by the $SU(2)/Z(2)$ dynamics.

J. Fröhlich and T. Spencer, *On the statistical mechanics of classical Coulomb and dipole gases*, J. Stat. Phys. 24 (1981), 617701.

Introduction

The reader familiar with a recent paper of **Mack and Petkova** (38) should note that their modification of the SU(2) lattice gauge theory has an analog in the two-dimensional XY model.

F. E. Schunck, *Phenomenological model of the weak interaction*, arXiv:0809.3592 [hep-ph].

Introduction

Following **Mack and Petkova** [16], quarks can be described by condensed vortices.

O.A. Borisenko, V.K. Petrov, G.M. Zinovjev, *Induced Lattice Dielectric Gauge Theory at Finite Temperature*, Progress of Theor. Phys.,91, No. 6 (1994) 1181-1198.

Introduction

The corresponding Monte-Carlo studies of the 't Hooft loop correlation functions in SU(2) pure gauge system and in modified **Mack-Petkova** SU(2) gauge theory which does not contain dynamical magnetic

monopoles have shown that in the high-temperature phase the static non-abelian fields are really screened for distances much larger than the screening length ....

L. Caneschi, I. Fox, S. Solomon, On the nature of the phase transition in a class of lattice gauge theories, NP B220 (1983) 246.

Introduction

The cross-over region is characterized by the rapid disappear- ance of configurations that contain Z(2) **Mack-Petkova monopoles (MPM)** [5] of minimal size.

T. Kanazawa, *Generalizing the TomboulisYaffe inequality to SU(N) lattice gauge theories and general classical spin systems* Annals of Physics 324 (2009) 1634-1665.

Introduction and more in the text

Such an idea was imported into the studies of SU(N) gauge theories ingeniously by t Hooft [5], **Mack and Petkova** [6] and several others [7]....

On the other hand, **Mack and Petkova** formulated a center vortex contained in a torus of finite diameter with a fixed boundary condition on the surface, and the presence of a center vortex was ensured by a singular gauge transformation operated on the surface. ... What **Mack and Petkova** achieved is to prove an inequality rigorously,..

A Patrascioiu, E Seiler, *The difference between Abelian and non-Abelian models: fact and fancy* , arXiv:math-ph/9903038.

Introduction and more in the text

We will also adapt the **Mack-Petkova** modification of gauge theories to 2D O(N) nonlinear σ models. ...we consider the following model which is inspired by some considerations for lattice gauge theories due to **Mack and Petkova** [5]...

The following theorem can be proven along the lines of **Mack and Petkova** [5]: ....

For details of this proof we refer the reader to the paper of **Mack and Petkova** [5].

Z. Sun, *A note on the representations of SO(1,d+1)*, arXiv:2111.04591 [**Ref. 8**]

Introduction and more in the text

The beautiful topic regarding harmonic analysis on SO(1, d + 1) is not covered in this note. An excellent and comprehensive review on this topic is **[50]**. ..

The representations F,s are important for the following reasons **[50]**:...

For a detailed derivation of such an expansion, we refer to the book **[50]**. Here we present the result...

In this subsection, we will look into the four types of F,s at exceptional points, mainly following **[50]**:..

A detailed proof for the rest sequences can be found in [50]....

In addition, $U^{+}_{s,t}$ belong to the discrete series of $SO(1,4)$ **[50]** ...

Due to the Bruhat decomposition of SO(1, d + 1) **[50]** ...

C. Bachas and I. Brunner, *Fusion of conformal interfaces*, JHEP 02 (2008) 085.

Introduction

Interfaces of this type, first introduced by **Petkova and Zuber** [4], can move freely on a Riemann surface and are, in this sense, topological.

K Graham, GMT Watts , *Defect lines and boundary flows*, JHEP 04 (2004) 019.

Introduction and more in the text

Here we also review the construction of defect lines following **Petkova and Zuber**.... .... **Sect. 2.1 Petkova and Zuber's Defect lines** ...

M Gutperle, JD Miller, *A note on entanglement entropy for topological interfaces in RCFTs*, JHEP 04 (2016) 176.

Introduction and more in the text

In section 2 we review the construction of topological interfaces in rational CFTs which goes back to the work of **Petkova and Zuber[14]** ... s. The construction of **[14]** also includes non-diagonal theories and it would be interesting to understand the entanglement entropy for this cas

C. Bachas, in "On the Symmetries of Classical String Theory, Quantum Mechanics of Fundamental Systems: The Quest for Beauty and Simplicity", (2009) part 2, pp. 17-26, Springer.

Topological loop operators were first introduced and analyzed in CFT by **Petkova and Zuber** [40].

R. Angius, S. Giaccari, R. Volpato, *Topological defects in K3 sigma models*, arXiv:2402.08719

One simple and powerful method pioneered by **Petkova and Zuber** in [8] consists in imposing the analogue of the Cardy condition for boundary states.

M. Gutperle, Yan-Yan L, D. Rathore, K. Roumpedakis, *Non-invertible symmetries in S_N orbifold CFTs and holography*, e-Print: 2405.15693 [hep-th].

Introduction and more in the text

... In this work, we look at these universal defects in two-dimensional symmetric orbifold CFTs. We construct them by applying the projector construction of **Petkova and Zuber** [74]... Operators like (2.2) satisfying the **Cardy-Petkova-Zuber** [74, 75, 94] conditions can be viewed as topological line-defects

M .Doerrzapf, *Analytic expressions for singular vectors of the N=2 superconformal algebra*, CMP 180 (1996) 195-231.

Introduction

Recently, **Ganchev and Petkova** developed a third method which transforms Kac-Moody singular vectors into Virasoro ones [10].

V.K. Dobrev, S.G. Mihov, *Induced representations for duals of two parameter GL(2) deformations*, in in Proceed. of Max Born Symposium "New symmetries and integrable models", World Scientific, (2000) 39-61.

... the last three formulae of (39), which was obtained first in **Ganchev and Petkova**

J.L. Petersen, J. Rasmussen, M. Yu, *Hamiltonian reduction of SL (2) theories at the level of correlators* , Nucl. Phys. B 457 (2005) 343-356.

Introduction and more in the text

A particularly simple and remarkable realization of these ideas has been discussed by **Furlan, Ganchev, Paunov and Petkova** [4] at the level of N-point conformal blocks on the sphere.

Thus **Furlan, Ganchev, Pauna and Petkova** [4] presented a systematic approach whereby one makes use of the representations of primary SL(2) fields as functions of two variables, (z,x), of which z is the usual Koba-Nielsen variable and x is a variable used to keep track of the SL(2) weight ...

J. Rasmussen, *Two-point Functions in Affine SL(N) Current Algebra*, Mod. Phys. Lett. A 13, No. 16 (1998) 1281-1288.

Introduction

...a motivation for studying two-point functions in affine current algebra is found in the wish to understand how to generalize to higher groups the proposal by **Furlan, Ganchev, Paunov and Petkova** [2] for how Hamiltonian reduction of affine SL(2) current algebra works at the level of correlators.

A. Nichols, *Extended chiral algebras in the $SU(2)_0$ WZNW model*, JHEP 04 (2002) 054.

...Here we follow an elegant realisation of this reduction that allow us to perform this a tthe level of the correlation functions. The motivation for sucha procedure comes from the observation that setting $x_i = z_i$ in the two and three point functions (3.4) and (3.5) gives the expected results with the correct conformal weight (5.2). What is far from obvious and is the central result of a series of papers by **Petkova et al.** [81, 82, 83] is that this simple procedure also extends to the four point functions. It was shown that, if instead of expanding as in (4.1), we expand about the point $x = z$: *formula (5.3) from the cited [81].*

Sh. Minwalla, *Restrictions imposed by Superconformal Invariance On Quantum Field Theories*, Adv. Theor. Math. Phys. 2 (1998) 781-846

We will proceed to use a method developed by **Dobrev and Petkova** in [4], [5],[6].

P. Bowcock and A. Taormina, *Representation theory of the affine Lie super algebra $\widehat{sl}(2/1; C)$ at fractional leve*, CMP 185 (1997) 467

Dobrev and Petkova [15] and later, Penkov and Serganova [33] have actually extended the definition of the Weyl group to incorporate the transformation $\alpha_2 \to -\alpha_2$.

I Heckenberger, H Yamane, *A generalization of Coxeter groups, root systems, and Matsumoto's theorem* Math. Zeitschrift 259 (2008) 255-276.

Introduction

In connection with a special class of contragradient Lie algebras **Dobrev and Petkova** [7, Sect. 2] extended the Weyl group symmetry of the Lie superalgebra by simple reflections on isotropic roots. Later it turned out that these so called "odd reflections" appear naturally in a fairly general context.

A. Alldridge, *Fréchet Globalisations of Harish-Chandra Supermodules*, Int Math Res Notices 17 (2017) 5182-5232.

Introduction

A global perspective was taken by **Dobrev - Petkova** [27], who realise induced representations of the supergroup $SU(2,2|N)$ on spaces of superfunctions. They classify unitary irreducible represenations of positive energy [28,29]...

R Coquereaux, M Huerta, *Torus structure on graphs and twisted partition functions for minimal and affine models*, Journal of Geometry and Physics 48, Issue 4, (2003) 580-634.

Introduction and more in the text

.....The interpretation of what we call torus structures in terms of defects (or twists) in a conformal field theory with boundary was proposed by **Petkova and Zuber** [37]. ... Following **Petkova and Zuber** [36], they can be interpreted as a result of the insertion of twisted boundary conditions (defect lines).... As shown in [36]

M. A. Rajabpour, Loop models for CFTs, J.Phys. A 41 (2008) 405001, arXiv:0806.4520.

The other more interesting direction is using the method of **Behrend, Pearce, Petkova and Zuber [38]** to find the fusion rules of boundary conformal field theory by just using the modular invariant partition function of the CFT a This is the method followed by **[38]** to classify all the conformal boundary conditions of rational CFTs specially SU(2) WZW models.

The other more interesting direction is using the method of Behrend, Pearce, Petkova and Zuber [38] to find the fusion rules of boundary conformal field theory by just using the modular invariant partition function of the CFT a

DE Evans, M Pugh , *The Nakayama Automorphism of the Almost Calabi-Yau Algebras Associated to SU(3) Modular Invariants*, CMP 312 (2011) 179, arXiv:1008.1003 [math.OA].

Introduction

Behrend, Pearce, Petkova and Zuber [1] (see also [73]) systematically proposed nimreps as a framework for boundary conformal field theory.

F. Ravanini, RG flows of nondiagonal minimal models perturbed by $\phi_{(1,3)}$, Phys.Lett.B274(1992) 345-351, hep-th/9110018.

For the (A, D) series the structure constants have been given by **Petkova** [9] and, as far as only field in the A_0 subalgebra are concerned, they coincide with those of the (A, A) series. We shall see that we need indeed only this subset of (A, D) structure constants; for the interested reader, a nice expression for the remaining ones can be found in [9].

A.V. Belitsky, G.P. Korchemsky, Crossing bridges with strong Szego limit theorem, JHEP 04 (2021) 257, e-Print: 2006.01831 [hep-th]. **[Ref. 58,59]**.

Introduction and more in the text

Thus, having evaluated the aforementioned sums over all excitations, one would obtain a finite-coupling representation of the octagons. This was accomplished in **Refs. [9, 10]**, where a concise formula for O? was given in terms of a determinant of a semi-infinite matrix. This result served as the starting point of our analysis in...

At finite coupling, the sum in (2.3) can be cast as a determinant of a semi-infinite matrix **[9, 10]**....

In this section, we recall the determinant representation of the octagon derived in **Refs. [9, 10]** ...

As was shown in **Refs. [9, 10]**, the sum over the intermediate states in (2.3) yields the representation