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Connection between Chern-Simons theory and topological field theory on SO(4)

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Goal of the work:
Prove the following conjecture: The largest maximal subgroup of shifts of a multipermutation system in the Moran covering is isomorphic to the maximal discrete group of displacements (branchings) of Γ(c) To do this, prove the lemma 〖lim〗 *(n⟶∞) lim*(k⟶∞)=#Aut(Γ)=ord(1/k)log#G_(n,k). Equivalent to this conjecture is the following statement: the vacuum expectation value of the Wilson loop will reduce to the vacuum expectation value for the maximal compact subgroup of the symmetry group G, that is, ⊠((⊠)). Relevance of the work:
This work shows a method for combining topological field theories and knot theory based on the hyperbolic theory of repellers on the spectra of sticky sets with a "gap" condition for conformal reference points using methods of the theory of non-commutative Lie groups. The concept proposed in the work allows more
Results:
1. Examples of invariant knots in SO (4) are constructed
2. The Inono-Wigner contraction for the symmetry group of SO (4) is performed using methods of the theory of non-commutative algebras
3. A new proof of the Brouwer theorem on the shift for a periodic point on the set "disk" is found
4. The Chern-Simons action is modified using the method of Cartan exterior forms, it is shown that translationally invariant components of the Lie algebra can describe a topologically invariant contortion tensor (Cartan tensor)
5. Based on the polysymbolic formalism of the description of the Cachazo-Ye-Yuan equation, a new method for calculating Wilson loops is derived, as applied to three-amplitude fermion Feynman diagrams
6. It is proved that elliptic symplectic compact sets have the specification property.
7. The properties of the symplectic time ordering operator are studied
8. It is proven that the sum of multipermutation subshifts of a topological Markov chain on a Moran cover on a Carathéodory structure in the projective limit converges to an invariant of motion of the type of Randemeister motion
9. It is shown that the extended locality criterion for loops allows one to construct form factors based on a sequence of p-addic numbers
10. The equivalence of the definitions of homeomorphism on pseudoholomorphic curves on elliptic sets for different classes of symplectic capacities is proved.
11.A formulation of the model of the spectrum of sticky sets for conformally symmetric repellers for non-commutative Lie groups is constructed

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