

9th MATHEMATICAL PHYSICS MEETING: School and Conference on Modern Mathematical Physics

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Abstracts

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Cycles cohomology by integral transforms in derived geometry to ramified field theory

Several geometrical Langlands correspondences are considered to determine equivalences necessary to the obtaining in the quantized context from differential operators algebra (actions of the algebra on modules) and the holomorphic bundles in the lines bundle stacks required to the modeling of the elements of the different physical stacks and the extension of their field ramifications to the meromorphic case. In this point, is obtained a result that establish a commutative diagram of rings and their spectrum functor involving the non-commutative Hodge theory, and using integral transforms to establish the decedent isomorphisms in the context of the geometrical stacks to a good Opers, level. The co-cycles obtained through integral transforms are elements of the corresponding deformed category to mentioned different physical stacks (where are had, even field singularities). In this point, a justification on the nature of the our twisted derived categories and their elements as ramifications of a field (to the field equations) is the followed through the Yoneda algebra where is searched extends the action of certain endomorphisms of Verma modules of critical level through the Lie algebra of ramifications, whose cohomological space has zero dimension. This establishes solution classes to the QFT-equations in field theory through the spectrum of their corresponding differential operators.

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