

Semi-infinite Hodge structure associated with hyperbolic root systems

Monday 3 February 2025 14:00 (1 hour)

It is well-known that there exist semi-infinite Hodge structure associated to finite or elliptic root systems (which describes the lattice of vanishing cycles for either simple or elliptic root systems). Recently, we found that the semi-infinite Hodge structure exist for hyperbolic root systems of rank 2. This is a surprise, since the hyperbolic root systems do not have geometric origin so they behave quite differently than the above classical cases (e.g. some eigenvalues of monodromy are not root of unity but real). In the present talk, we will describe the construction down to the earth.

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