

# The motivic nature of the quantum coadjoint action

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We show that the quantum coadjoint action on the quantum algebra  $U_q(sl_2)$  is induced from a solvable quotient of the motivic Galois group. This provides a toy model example for the action of the motivic Galois group on string theory related moduli spaces, conjectured by Kontsevich and Soibelman.

[1] H. Grosse, K.-G. Schlesinger: *A remark on the motivic Galois group and the quantum coadjoint action*, hep-th/0412162

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