



Du
17
OCT.
2022

09h00
-
11h00

SÉMINAIRE D'ALGÈBRE

Linhui Shen: Cluster Nature of Quantum Groups

Zoom

INSCRIPTION

We present a rigid cluster model to realize the quantum group $U_q(g)$ for g of type ADE. That is, we prove that there is a natural Hopf algebra isomorphism from the quantum group to a quotient algebra of the Weyl group invariants of a Fock-Goncharov quantum cluster algebra. By applying the quantum duality of cluster algebras, we show that the quantum group admits a cluster canonical basis Θ whose structural coefficients are in Laurent polynomials with non negative integer coefficients in the square root of q . The basis Θ satisfies an invariance property under Lusztig's braid group action, the Dynkin automorphisms, and the star anti-involution.

URL de la page : <https://www.ihp.fr/fr/agenda/linhui-shen-cluster-nature-quantum-groups>



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HORAIRES

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.