Representation theory of non-factorizable ribbon Hopf algebras

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In a recent pre-print with Q. Faes (arXiv:2503.19532) we introduced new examples of non-factorizable ribbon Hopf algebras extending several existing constructions, such as small quantum groups at an even root of unity. The sequel (arXiv:2510.24263) focuses on their representation theory and properties of the representation categories, in particular their symmetric centres. These can be non-semisimple and contain infinitely many indecomposable objects, an unusual property among the previously known examples. In this talk I will summarise the results from representation-theoretic perspective, and hint at their applications in topology of 4-manifolds.