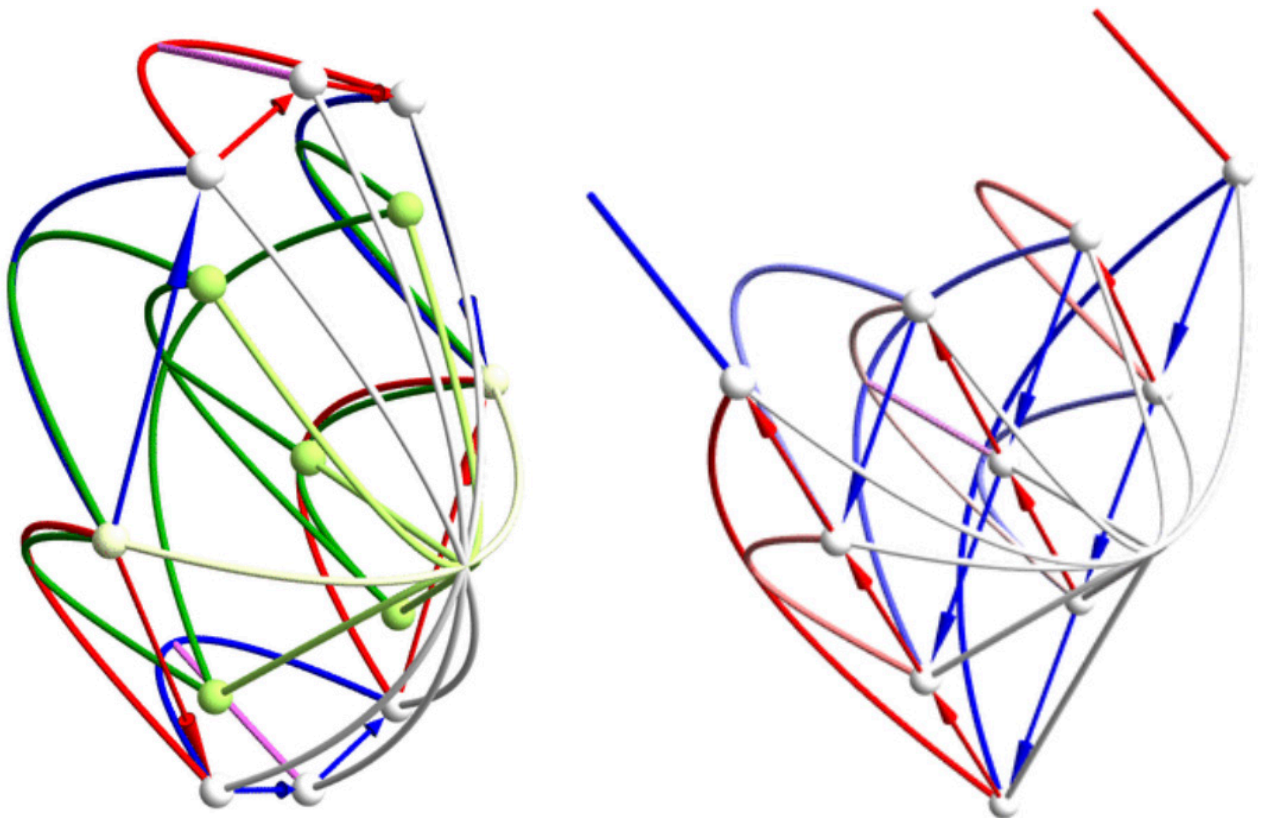


# Anatomy of big algebras

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Starting with Schrodinger's critique of the difficulty of visualising Heisenberg's matrix quantum physics we will discuss the notion of non-commutative matrices and its use in particle physics via Gell-Mann's eightfold way describing heavy particles in terms of quarks. Then I will use these backgrounds to motivate my recent work on big algebras – commutative avatars of non-commutative matrix representations – and show some visualisation of them to highlight their complex anatomy, shedding some new light on the quantum numbers of the heavy particles in the baryon octet and decuplet.

Thursday 16<sup>th</sup> October 2025

1 pm – 2 pm

SMRI Seminar Room (Macleay Building A12 Room 301)

Please join us after the seminar for the SMRI afternoon tea, 2 pm every Thursday on the terrace



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