

Poisson geometry of planar networks and simple Lie groups

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Elements of the matrix group $GL(n)$ can be encoded by weighted planar networks (directed graphs with numbers written on edges) with n sources and n sinks. Such graphical representation is useful for studying matrix factorizations, totally positive matrices etc. Furthermore, Gekhtman, Shapiro, and Vainshtein showed that such networks also capture Poisson geometry of $GL(n)$ endowed with a standard multiplicative Poisson bracket. In the talk I will present a similar graphical representation of standard Poisson structures on simple Lie groups of type B and C .