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Bethe subalgebras and wonderful models for toric arrangements

Bethe subalgebras in Yangians are maximal commutative subalgebras responsible for higher integrals of various integrable systems (specifically, XXX Heisenberg chain and its generalizations). We study the natural compactification of the parameter space of quadratic components of Bethe subalgebras in the Yangian of any finite type and show that this compactification is isomorphic to De Concini - Gaiffi projective wonderful model for a root toric arrangement. Conjecturally, this compactification parametrizes all possible degenerations of Bethe subalgebras. We describe explicitly Bethe subalgebras corresponding to boundary points of the compactification. Our main tool is the trigonometric version of the holonomy Lie algebra introduced by Toledano Laredo. This is a joint work with Aleksei Ilin.