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Integrability and symplectic duality for generalized hyperpolygons

In this talk, I will construct a generalization of hyperpolygon space from a comet-shaped quiver. The resulting Nakajima quiver variety can be interpreted as a distinguished subvariety of a moduli space of meromorphic Higgs bundles on a punctured curve. I will discuss how this space of generalized hyperpolygons inherits, for complete and minimal flags, a Gelfand-Tsetlin-type integrable system from the reduction of a product of cotangent bundles of (partial) flag varieties, as shown in joint work with Laura Schaposnik. Inspired by this work, I will introduce a conjectural Coulomb branch for the space of generalized hyperpolygons, which is one step towards fully realizing symplectic duality in this setting.