# The Integrability of the Full Kostant-Toda Lattice for $\mathfrak{sl}_n$

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The full Kostant-Toda lattice for a complex semi-simple Lie algebra, $\mathfrak{g}$, is a generalisation of the classical Toda lattice. In 1986, Deift, Li, Nanda and Tomei proved the complete integrability of the Toda equations $\dot{X}(t) = [X(t), \Pi_{\text{skew}}X(t)]$ for generic, symmetric $X$, and Ercolani, Flaschka and Singer (EFS) showed the analogous Hessenberg result in 1993. I will follow the paper "The Geometry of the Full Kostant-Toda Lattice", by EFS, presenting the full Kostant-Toda lattice for $\mathfrak{sl}_n(\mathbb{C})$ and providing a description of the required constants of motion in the form of chop integrals.