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Haantjes manifolds

We shall recall the notion of Nijenhuis torsion of a $(1,1)$-tensor on a smooth manifold and the lesser-known Haantjes torsion. We shall then show how the Magri–Lenard systems generalize the classical approach to integrable systems in the bi-hamiltonian and symplectic-Nijenhuis formalisms, the sequence of powers of the recursion operator being replaced by a family of commuting Haantjes operators.