

Commuting higher rank ordinary differential operators

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Abstract

We survey the theory of commuting ordinary differential operators. Some advances in the case of higher rank operators are discussed. Sufficient conditions are found when rank two operators are formally self-adjoint. We also point out examples of formally self-adjoint operators with polynomial coefficients, corresponding to a spectral curve of arbitrary genus. These operators define commutative subalgebra of the Weyl algebra A_1 .

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