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**Symmetry analysis and conservation laws for the Hunter-Saxton equation.** (English)

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**MSC:**

- 35G50** Systems of nonlinear higher-order PDEs
- 35B06** Symmetries, invariants, etc. in context of PDEs
- 37K05** Hamiltonian structures, symmetries, variational principles, conservation laws (MSC2010)
- 37K10** Completely integrable infinite-dimensional Hamiltonian and Lagrangian systems, integration methods, integrability tests, integrable hierarchies (KdV, KP, Toda, etc.)
- 37K15** Inverse spectral and scattering methods for infinite-dimensional Hamiltonian and Lagrangian systems
- 65H20** Global methods, including homotopy approaches to the numerical solution of nonlinear equations
- 82D30** Statistical mechanics of random media, disordered materials (including liquid crystals and spin glasses)

Cited in **6** Documents

**Keywords:**

Hunter-Saxton equation (HSE); Lie symmetry method; invariant solution; conservation laws; Boyer's generalization of Noether's theorem; Homotopy operator methods

**Full Text:** [DOI](#)