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WDVV equations: symbolic computations of Hamiltonian operators. (English)


Summary: We describe software for symbolic computations that we developed in order to find Hamiltonian operators for Witten-Dijkgraaf-Verlinde-Verlinde (WDVV) equations, and verify their compatibility. The computation involves nonlocal (integro-differential) operators, for which specific canonical forms and algorithms have been used.

MSC:
37K10 Completely integrable infinite-dimensional Hamiltonian and Lagrangian systems, integration methods, integrability tests, integrable hierarchies (KdV, KP, Toda, etc.)
53D45 Gromov-Witten invariants, quantum cohomology, Frobenius manifolds
68W30 Symbolic computation and algebraic computation

Keywords:
WDVV equations; Hamiltonian operators; Schouten bracket; symbolic computations; integro-differential operators; weakly nonlocal operators

Software:
GitHub

Full Text: DOI

References:


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