# Symplectic projection methods of deriving long-time asymptotics for nonlinear PDEs

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We consider some systems which describe a field-particle interaction, namely a charged particle coupled to the scalar wave field, to the Klein-Gordon field, and to the Maxwell field. Since the systems are Hamiltonian, methods of symplectic projection onto invariant finite-dimensional manifolds of soliton-type solutions turn to be helpful in deriving long-time asymptotics of solutions, [1, 2, 3, 4].

## References

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