

SOLITON-LIKE STATES OF THE ORDER  
PARAMETERS NEAR THE LIFSHITS POINTS

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S u m m a r y

The soliton-like states of order parameters have been considered in the framework of a model which describes phase transitions for a single-component non-uniform order parameter and takes into account its higher-order derivatives. Exact solutions of the variational equation have been constructed in the framework of the  $\varphi^6$ -model. The scale invariance of the equations in models with arbitrary nonlinearity has been studied. The criteria of integrability have been found for scale-invariant equations.