

[Delort, J.-M.](#); [Szeftel, J.](#)

Long-time existence for small data nonlinear Klein-Gordon equations on tori and spheres.

(English) [Zbl 1079.35070](#)

[Int. Math. Res. Not.](#) 2004, No. 37, 1897-1966 (2004).

The paper deals with long-time existence of solutions to quasilinear Klein-Gordon equations with small smooth initial data $\varepsilon u_0, \varepsilon u_1$ on compact manifolds, namely tori and spheres. It is proved, that time of existence to smooth solutions tends to infinity as at least ε^{-2} .

Reviewer: [Marie Kopáčková \(Praha\)](#)

MSC:

- [35L70](#) Second-order nonlinear hyperbolic equations
- [35L15](#) Initial value problems for second-order hyperbolic equations
- [35B65](#) Smoothness and regularity of solutions to PDEs
- [35B40](#) Asymptotic behavior of solutions to PDEs

Cited in **49** Documents

Keywords:

[Fourier transform](#)

Full Text: [DOI](#)