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Fredholm Alternative for Hyperbolic Models in Laser Dynamics

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We provide a quite general approach to proving Fredholmness of periodic problems for first-order one-dimensional linear hyperbolic PDEs. In laser dynamics these techniques apply to investigation of Hopf bifurcations and a periodic forcing of stationary solutions.

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- [1] I. Kmit, L. Recke, Fredholmness and Smooth Dependence for Linear Hyperbolic Periodic-Dirichlet Problems, 2010. <http://arxiv.org/pdf/1005.0689v2>
- [2] I. Kmit, Smoothing Solutions to Initial-Boundary Problems for First-Order Hyperbolic Systems, 2010. <http://arxiv.org/pdf/0908.2189v2>