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Time-harmonic acoustic scattering from locally perturbed periodic curves. (English)

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MSC:

- 78A45 Diffraction, scattering
- 76Q05 Hydro- and aero-acoustics
- 74J20 Wave scattering in solid mechanics
- 35J05 Laplace operator, Helmholtz equation (reduced wave equation), Poisson equation
- 35J08 Green's functions for elliptic equations
- 35J50 Variational methods for elliptic systems
- 35P25 Scattering theory for PDEs
- 35A01 Existence problems for PDEs: global existence, local existence, non-existence
- 35A02 Uniqueness problems for PDEs: global uniqueness, local uniqueness, non-uniqueness

Keywords:

scattering problem; two-dimensional Helmholtz equation; locally perturbed periodic boundary curve; half-plane Sommerfeld radiation condition; sound-soft boundary condition

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