

Title: Construction of Hierarchical Mathematical Models for Reiner Elastic Materials

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Keywords:

Hierarchical models,
Reiner elastic material,
Prismatic shell-like domain.

Abstract:

The present work is devoted to construction, using I.Vekua's dimension reduction method, for the Reiner elastic bodies, in the some sense linearized case. The shell-like domain $\Omega \subset R^3$ with both Lipschitz and Non-Lipschitz boundaries is occupied by the Reiner elastic material. In the N -th approximation initial-boundary value problems are posed. The peculiarities of settling the boundary conditions for cusped prismatic shells is discussed in the projection $\omega \subset R^2$ of Ω .

Theme: Construction of mathematical models for Reiner elastic materials

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Keywords:

the Reiner elastic material,

cusped prismatic shells

Annotation:

The present talk is devoted to construction, using I.Vekua's dimension reduction method, for the Reiner elastic bodies, in the some sense linearized case. The shell-like domain $\Omega \subset R^3$ with both Lipschitz and Non-Lipschitz boundaries is occupied by the Reiner elastic material. In the N-th approximation initial-boundary value problems are posed. The peculiarities of settling the boundary conditions for cusped prismatic shells is discussed in the projection $\omega \subset R^2$ of Ω