

Title of Minisymposium

Propagation of electron, elastic, and electromagnetic waves in nonhomogeneous waveguides and nanostructures

Organizers:

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Abstract:

The purpose of the minisymposium consists in presenting some new results on phonon, electron, and electromagnetic waves scattering obtained by recently developed asymptotic and numerical methods. The studies are motivated by actual problems in physics and engineering. Among them:

- Methods of computation of scattering matrices;
- Switch devices of electron beams in quantum waveguides;
- Asymptotic theory and numerical simulation of electron resonant tunneling in waveguides with varying cross-section;
- Control of the thermal conductance of dielectric nanofibers.

Presumably the minisymposium will consist of 7-8 talks.

Possible contributors

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- L. Baskin, St. Petersburg University for Telecommunication, Russia
- O. Sarafanov, St. Petersburg State University, Russia
- D. Sokolovsky, University of Belfast, UK.
- A. Pozharskii, University of Jyväskylä, Finland.
- Contribution by micro and nanoelectronic industry