NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics

Manipulation of Electromagnetic Fields with Wire Metamaterials:

From Improvement of MRI to Dark Matter Search

Presented by

Professor Pavel A. Belov

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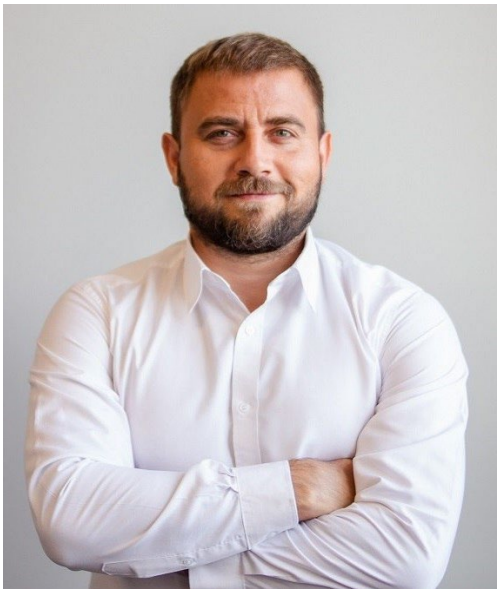
Thursday, February 29 at 12:00 noon

Join Zoom Meeting

https://liu.zoom.us/j/99738875874?pwd=UThQc1RGdnNHY0xIQXpiSnpWaE5HQT09

Meeting ID: 997 3887 5874
Passcode: 559281

Big screen available in Room 801N



The wire metamaterials are artificial media formed by metallic wires. The media feature unusual electromagnetic properties such as strong spatial dispersion, extreme anisotropy, plasma-like behavior and longitudinal polarization of waves. These properties allow one to manipulate electromagnetic waves in unprecedented ways.

The wire metamaterials can be used for subwavelength imaging, improvement of performance of magnetic resonance imaging and designing of microwave resonators for dark matter searches.

The electromagnetic properties of wire metamaterials and their applications will be reviewed during the talk.