

IEEE Women in Engineering (WIE) Montreal Section
with Women in Engineering (WIE) McGill Branch

IS PLEASED TO PRESENT THE FOLLOWING EVENT ON THE OCCASION OF
THE INTERNATIONAL WOMEN'S DAY (MARCH 8):

Monday, 12 March 2018, 11:30-12:30
McConnell Engineering Building, Room ENGMC 603, McGill University

**NMR TECHNIQUES FOR STUDY OF PHYSICAL PROPERTIES
OF REDUCED DIMENSIONALITY AND NANO-SCALE MATERIALS**

Prof. Vesna Mitrović

Department of Physics, Brown University, Providence, RI, USA

Abstract:

Particles, with physical size that is small enough, display properties which differ significantly from the bulk material due to both surface effects and quantum confinement effects. The characterization of electronic states that dictate their physical properties requires sensitive techniques to probe the metallicity of the surface and bulk of material. In addition, such sensitive technique should be able to probe both charge and spin degrees of freedom. NMR spectroscopy offers such sensitive probe of the electronic wavefunction, correlations, and dynamics. In this talk, I will discuss innovative resonance techniques that we have developed to study quantum size, surface, and spin-orbit coupling effects on the electronic properties of functional materials.

About the speaker:



Vesna Mitrović is currently Associate professor at Brown University. She joined the Brown Physics Department in 2003. A graduate of Illinois Institute of Technology, she received her Ph.D. from Northwestern University in 2001. She has done postdoctoral work at Grenoble High Magnetic Field Laboratory (Grenoble, France). She is A. P. Sloan Fellow and Fellow of the American Physical Society, for “pioneering contributions to NMR study of low energy excitations in emergent quantum phases”. Her research interests include study of the quantum phenomena arising in strongly correlated electron systems at low temperatures and high magnetic fields using NMR spectroscopy.

Refreshments will be served. Space is limited and registration is required for the event.
Please register here: <https://events.vtools.ieee.org/m/169108>