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Neutron scattering techniques for understanding restricted dimensionality in magnetism: interfaces, surfaces and more!

Monday, 13 August 2018 14:30 (30)

In this invited talk I wish to give an overview of neutron scattering at ANSTO. From this we will see neutron scattering as a powerful tool for understanding the structure and dynamics of materials. There are many different types of instruments utilizing neutrons from the OPAL reactor at ANSTO and these will be introduced in some detail. In particular I wish to focus on recent scientific results from magnetic materials such as BiFeO3 [1] and linarite [2] and give examples of the information that neutron scattering has revealed. By applying this technique to the study of restricted dimensions, we can devise better ways to develop new materials for future technologies.

[1] Joel Bertinshaw et al., Nature Communications **7**, 12664 (2016)
[2] K.C. Rule et al., Physical Review B **95**, 024430 (2017)

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