Surface and interfacial antiferromagnetism study using electrons

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Abstract

Knowledge of magnetism at surfaces and interfaces is crucial for their technological applications in key areas such as data storage and spintronic devices. The conventional approach to studies of surface antiferromagnetism primarily involves utilizing various synchrotron-based techniques. In this talk, I focus on some of the recently developed methods for the studies of surface and interfacial antiferromagnetism using electrons, enabling these studies to be performed in a laboratory environment without the necessity of access to dedicated synchrotron beamlines. We present some of our recent results demonstrating the ability of these methods, employing spectroscopic and microscopic approaches.