Contribution ID: **28** Type: **not specified**

Magnetism of V_{1/3}NbS_2: insight into an intercalated transition-metal dichalcogenide using μSR

Thursday, 5 September 2024 14:45 (15 minutes)

"V_{1/3}NbS_2, an intercalated transition-metal dichalcogenide, has been investigated previously using a variety of techniques, resulting in different conclusions about its magnetic properties.
We present muon-spin relaxation (μSR) and susceptibility measurements which examine both the static and dynamic magnetic behaviour of V_{1/3}NbS_2. A transition to long-range magnetic order
has been identified at 52.5(2) K and a further magnetic transition around 10 K has been observed in the magnetic dynamics via ZF measurement and also in wTF measurements. Our μSR measurements are supported by density functional theory (DFT) calculations, which allow for the determination of a single muon stopping site that experiences a dipolar field consistent with a previously-suggested double-Q magnetic state."

Primary author: Mr BENTLEY, Nathan (Durham University)

Presenter: Mr BENTLEY, Nathan (Durham University)

Session Classification: Science Session