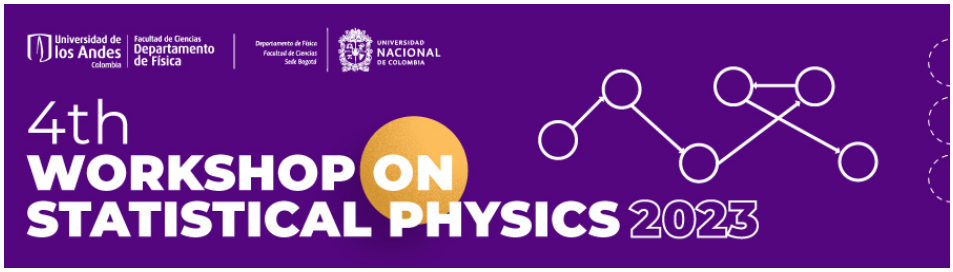

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Uniaxial Anisotropy in MnAlCu systems

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MnAlCu systems has shown enormous potential as permanent magnets due to their magnetic properties, which is why their characterization study has been carried out. During this research, uniaxial anisotropy was discover using FORC diagrams, which showed different uncentered boomerang shapes that varied depending on the percentage of doping. Furthermore, in order to understand their domains behavior, other data were taken using different techniques. MFM images were taken by changing the total magnetization of the sample, and SEM images were taken with the samples being demagnetized. Finally, to prove that the magnetic properties change depending on the exposure angle, additional Hysteresis and FORC data were taken by varying the angle.
The obtained results showed an interacting single domain behavior with a negative average interacting field, a mostly flat surface with some roughness at the preferred angle for the anisotropy, and a preferred direction for most domains.

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