

Physicists observe motion of skyrmions

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Small magnetic whirls may revolutionize future data storage and information processing if they can be moved rapidly and reliably in small structures. A team of scientists of Johannes Gutenberg University Mainz (JGU) and TU Berlin, together with colleagues from the Netherlands and Switzerland, has now been able to investigate the dynamics of these whirls experimentally. The skyrmions, as these tiny whirls are called after the British nuclear physicist Tony Skyrme, follow a complex trajectory and even continue to move after the external excitation is switched off. This effect will be especially important when one wants to move a skyrmion to a selected position as necessary in a future memory device. This research was published in the journal Nature Physics with a student of the Graduate School of Excellence Materials Science in Mainz (MAINZ) as the first author.

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