Within the Ataktos project the origin of the variation in switching field for individual magnetic dots in magnetic patterned media is investigated.

Patterned magnetic media is one of the possible replacements for the polycrystalline media present in current hard disks. Using a patterned magnetic medium a high bit density can be achieved while maintaining the stability of the written data. One of the current obstacles is the large variation in switching field for the individual dots.

Within the Ataktos project, which is Greek for naughty or orderless, the possible causes for the variation in switching field for individual dots is investigated. The dots will be created in Co/Pt multilayers using Laser Interference Lithography (LIL).

The switching field distribution of the patterned media will be investigated using, among others, an Anomalous Hall Effect setup (AHE) which is sensitive enough to measure the switching of individual dots.

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Groups involved: Transducers Science and Technology (TST, MESA+)

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