

Abstract Submitted
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A look at the Dynamics of Ultrafast Magnetization Reversal¹

CHRIS RODGERS, GUOPING ZHANG, Indiana State University — There is an ever pressing need to figure out ways to store more data at a faster rate. The implementation of All Optical Magnetization Reversal is a potential step in this direction. There is a strong experimental understanding of the phenomenon. However, a clear theoretical model doesn't exist. The theoretical model presented here is a potential step towards an understanding of this phenomenon. Through a computer simulation, we show that magnetization reversal could potentially occur through the interaction of the circular polarization of an ultrafast laser pulse, and the orbital angular momentum of a bound spin particle.

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