Classical Magnetic Systems

On the behaviour of macroscropic magnetized moments in dissipative environments

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Preface

This document contains my work in regard to the magnetospin effect, first discribed by Dr. Elena Vedmedenko, who proprosed this topic to me, and Tim Matthies, who already conducted fundational investigations. My goal is to derive an accurate mathematical description of this effect, leading to accurate computational simulations of the discribed systems.

Raschke, August 2025

List of symbols

 $M \pitchfork N$

Transverse intersection

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CHAPTER ONE

Mathematical Introduction

We start by giving a short introduction to the necessary mathematical background for this project.

CHAPTER TWO

Magnetic Incline System