

A Systematic Description of the Wobbling Motion in Odd-Mass Nuclei Within a Semi-Classical Formalism

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A presentation for the degree of Doctor of Philosophy

May 11, 2023

1 Aim and Motivation

2 Introduction


- Nuclear Shapes
- Nuclear Triaxiality
- Wobbling Motion

Aim

Research Objectives

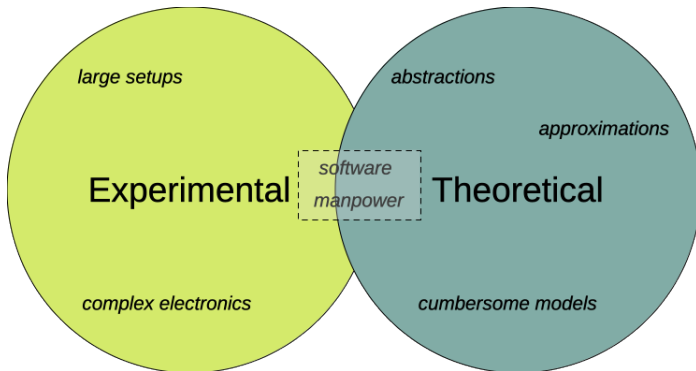
- Extend the current interpretation of the **nuclear triaxiality** in the context of its unique fingerprint: **Nuclear Wobbling Motion**. *from a theoretical standpoint*
- Provide new formalisms for the phenomena related to **nuclear deformation**.

Objectives exclusive to the thesis

- Give the reader a sufficiently rich theoretical background and context towards a better understanding of the underlying concepts.
-  create a completely *open-source* project.

Motivation

- **Nuclear Triaxiality** has become a *hot topic* within the scientific community.
- Identifying nuclei with triaxial deformations represents a real **experimental** and **theoretical** challenge.



Triaxiality - Nuclear facilities



Figure: Gammasphere detector, ANL-ATLAS USA. *Source:* [aps.org](https://www.aps.org)

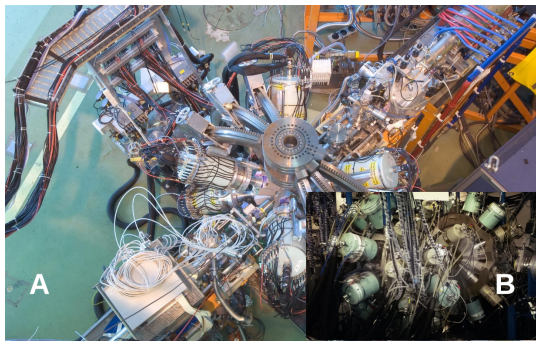
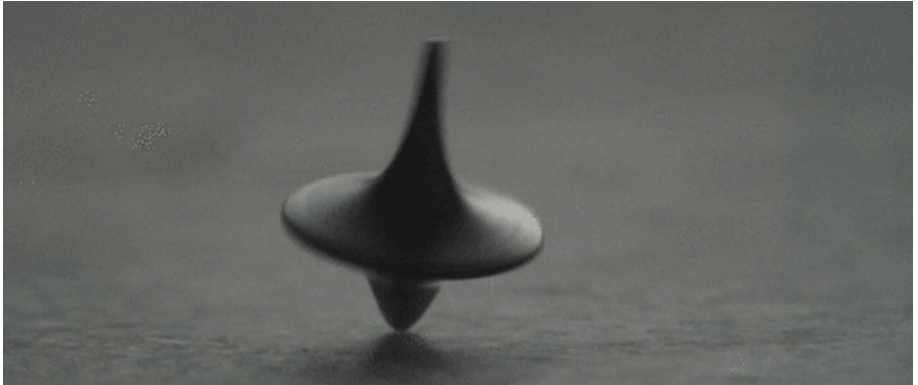
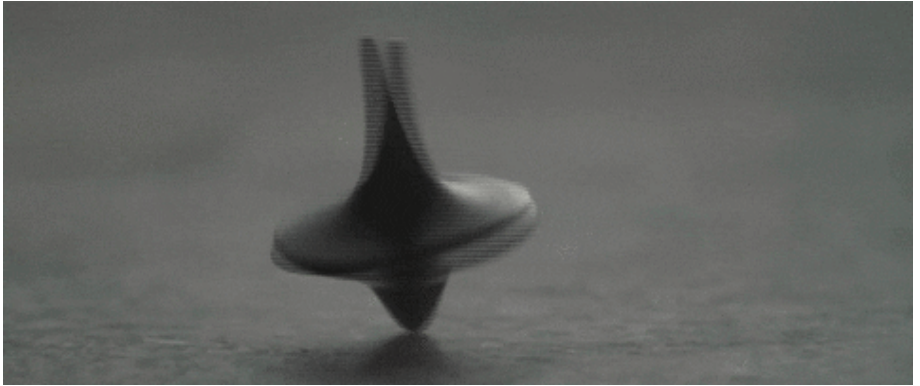
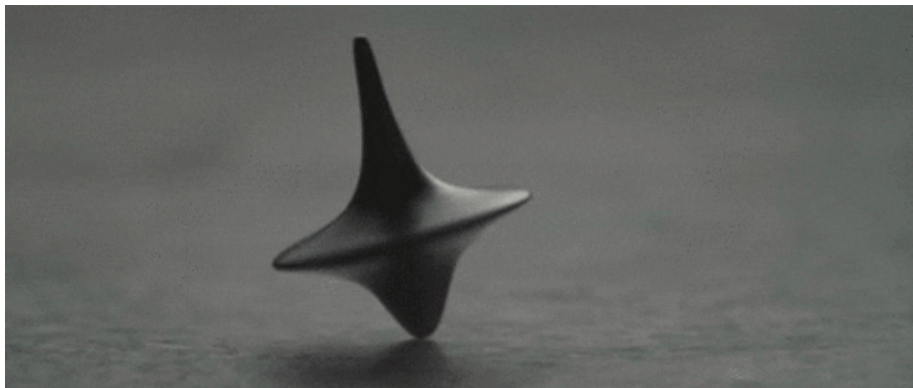
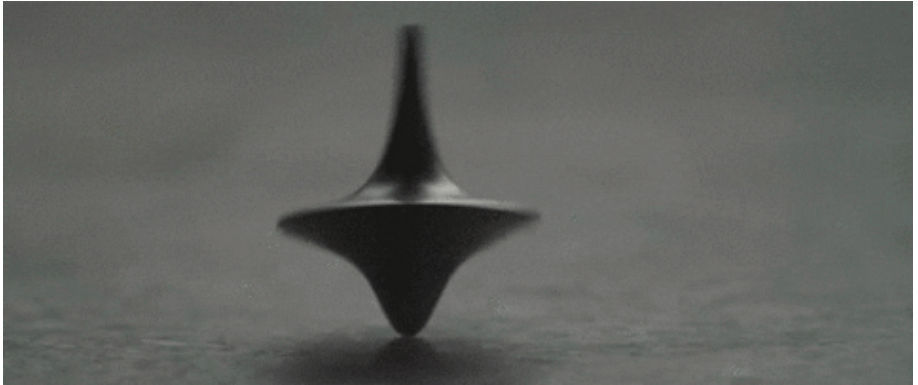


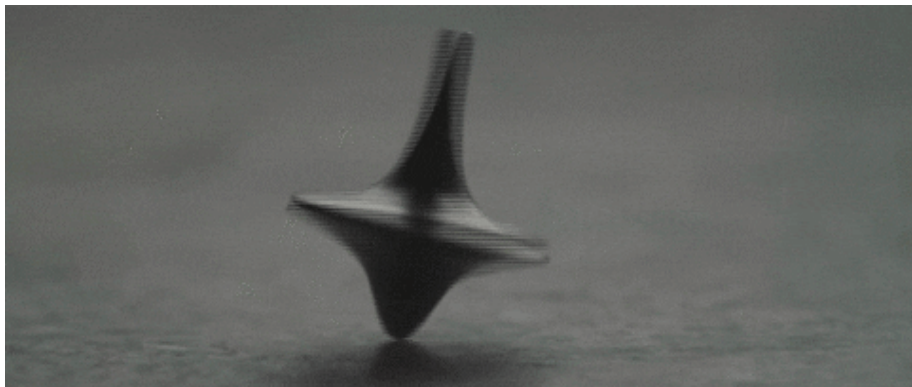
Figure: a) IDS detector, CERN. *Source:* isolde.web.cern.ch b) JUROGAM II, Finland. *Source:* twitter.com













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Thank you for your attention ♥