

UNIVERSITY OF BUCHAREST

[Wobbling Title]

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# *Abstract*

Nova.

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## *Acknowledgements*

Nova.

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# Chapter 1

## Introduction

Besides the spherical and axially-symmetric shapes, the existence of nuclear deformation was theoretically predicted a long time ago [\[1\]](#).

# Chapter 2

## Deformed Nuclei

### 2.1 Nuclear deformation

Most of the nuclei across the nuclide chart are spherical or symmetric in their ground state. Moreover, for the axially symmetric nuclei (i.e, either *oblate* or *prolate*), there is a prolate over oblate dominance.



FIGURE 2.1: Nuclear Shapes.

In Figure 2.1, the nuclear shapes are shown.

# Bibliography

- [1] Aage Niels Bohr and Ben R Mottelson. *Nuclear Structure (In 2 Volumes)*.  
World Scientific Publishing Company, 1998.