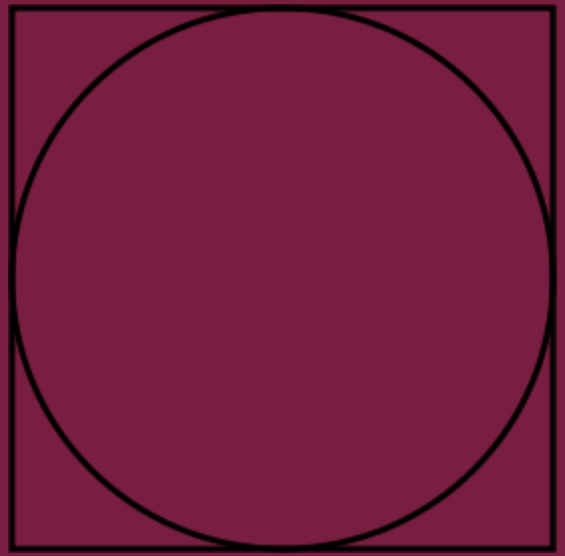
VYTAUTO DIDŽIOJO UNIVERSITETAS

NUCLEAR PHYSICS GROUP

Faculty of Natural Sciences | VMU

Saulius Mickevičius

Ramutis Kazys Kalinauskas



Augustinas Stepšys

Darius Germanas

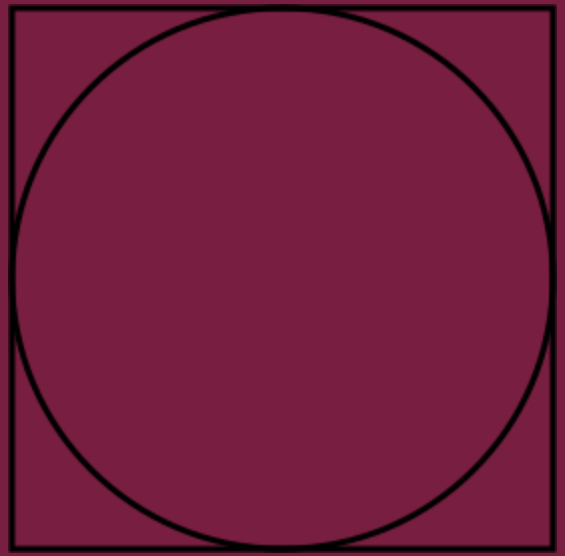
VYTAUTO DIDŽIOJO UNIVERSITETAS

Nucleus as a many-body system

Algebraic approach to Hamiltonian

From the first principles (ab-initio) !

Group theory as a language of symmetry



Harmonic oscillator basis

High performance distributed computing

M C M X X I I

VYTAUTO DIDŽIOJO
UNIVERSITETAS

From a few- body systems to p-shell nuclei

Algebraic approach to Hamiltonian

- From Deuteron to Lithium-6 and more!
- Effective computational model based on symmetry group apparatus
- Bound state parameters of nuclei
- Explore nuclear interation
- Exotic systems (e.g. hypernuclei)

M C M X X I I

VYTAUTO DIDŽIOJO UNIVERSITETAS

From a few- body systems to p-shell nuclei

Theoretical physics

Mathematical Physics

Computational Science

M C M X X I I

VYTAUTO DIDŽIOJO
UNIVERSITETAS

Thank You!