

*Celebrating
Prof. Anton N. Antonov
In Varenna 2018*



ИЯРИЕ
INRNE

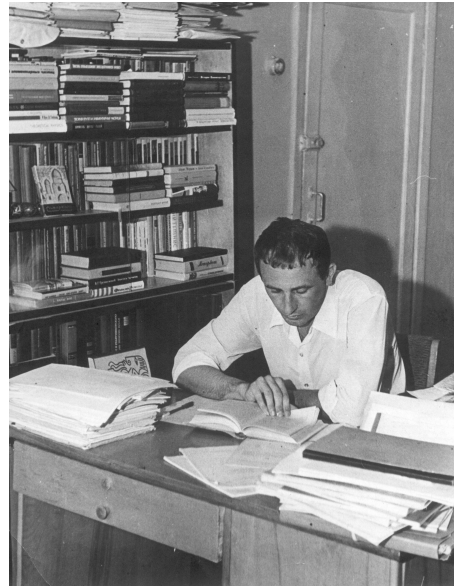


Student time in Kharkov



Харківський національний університет
імені В.Н. Каразіна

Master and PhD « Minimum Landau »



- He had very good professors, as Mikhail P. Rekalov
- He met very good friends: A.P. Rekalov, G. I. Gakh, E.A. Kuraev....

....and especially Krasimira, his wife!



...in Sofia

Professor

...teaching in Shumen and Sofia Universities

Scientific administrator

Head of the Nuclear Theory Group of INRNE, Sofia

Director of research

Supervisor of 4 PhD (at least)

...now researchers or professors

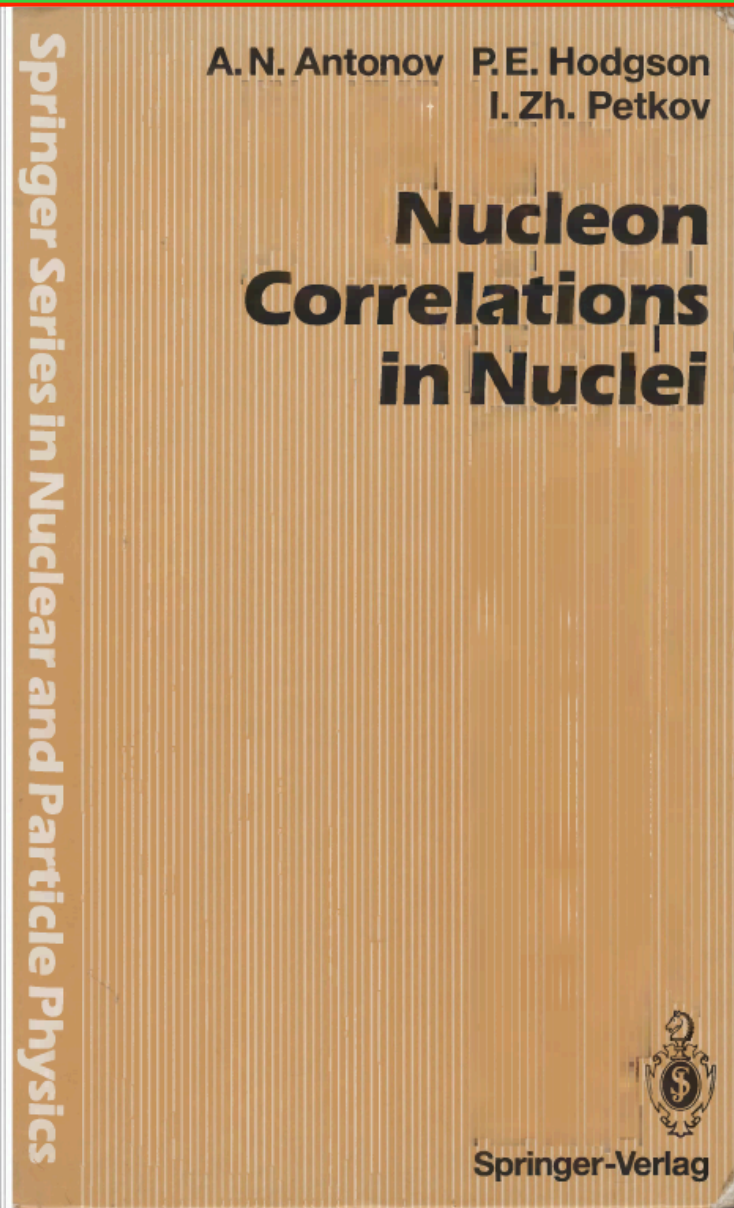
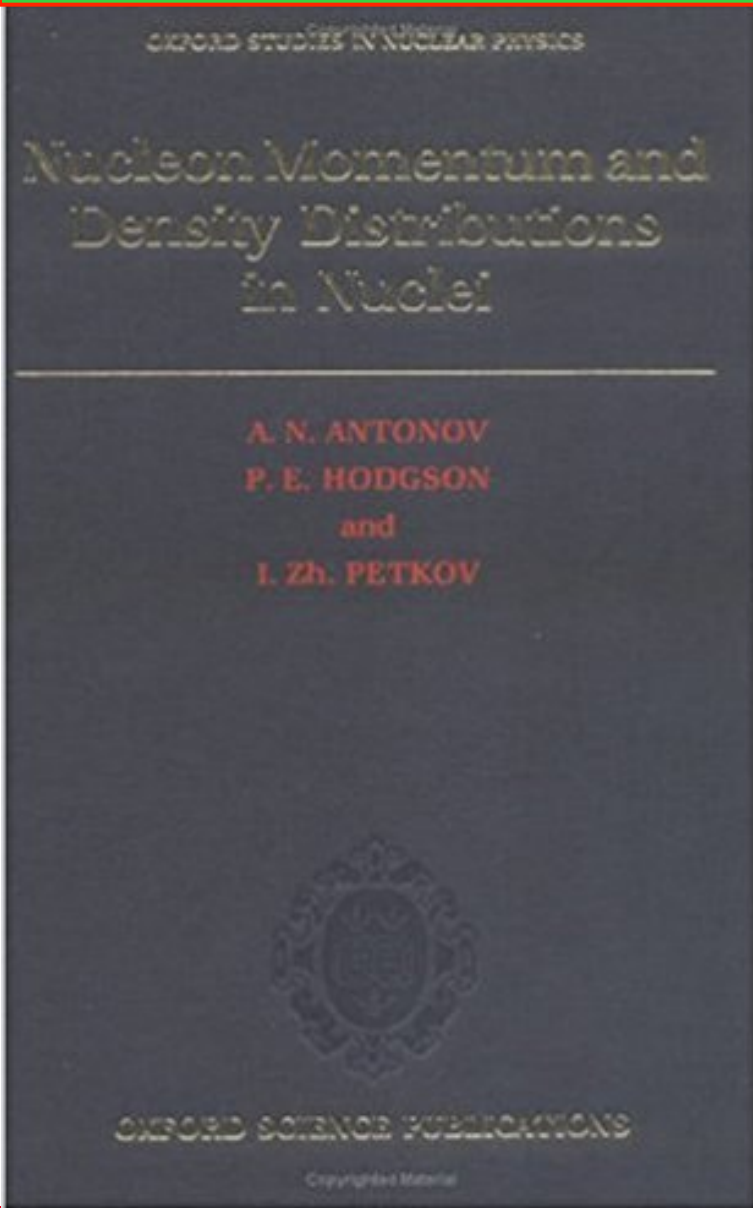
Head of international network

Collaborations with England, Spain, France, Japon, Kazakhstan, Dubna...

*..about 300 publications and contributions to conferences
+ two monographs*



TWO MONOGRAPHS



Oxford 1993

Peter E. Hodgson



Scientific achievements (see next talk !)

- *Doctor of Science (supervisor E.V. Inopin, Kharkov, 1972)*
- « *Nucleon-Nucleon Correlations and Characteristics of Nuclear Structure and Nuclear Reactions* ».
- « *THE EXPERT* »' of *nucleon-nucleon correlations* (short-range, tensor, long-range..) that play important role in the structure of nuclei and the dynamics of nuclear reactions.
- *Developed the Coherent Density Fluctuation Model (CDFM)* (with I. Zh Petkov and V. A. Nikolaev)
based on the delta-function approximation to the Generator Coordinate Method. The ansatz is that the One-body Density Matrix (ODM) of a finite nucleus can be expressed as an infinite superposition of ODM's of homogeneous pieces of nuclear matter, called « *fluctons* », of any size. The probability of each flucton is related to the density distribution of the nucleus.
- *A number of applications:* spectral functions and density distributions in nuclei, including exotic and halo nuclei, form factors of light nuclei, description of the scattering of protons and neutrons on nuclei, and, more recently, electrons and (anti)neutrinos on nuclei, explaining the evidence for superscaling



Final Announcement

SCIENTIFIC SESSION

dedicated to 70th Anniversary of Professor Anton N. Antonov

11.30 - **Marilena Avrigeanu** (Bucharest, Romania): *Key Effective Interactions for Nuclear Reaction Mechanism Account*
11.50 - **Pedro Sarriguren** (Madrid, Spain): *Neutron Skins in Spherical and Deformed Nuclei from Skyrme Hartree-Fock Calculations*

Dear colleagues,

Thank you very much for your participation in this session in honour of the 70th anniversary of Professor Anton N. Antonov. The session will be held on 23 September 2013 at the Institute of Nuclear Research and Nuclear Energy (INRNE) in Sofia, Bulgaria. The program is divided into two parts: the morning session is reserved for two invited speakers and the afternoon session for the Bulgarian Academy of Sciences. For more information, please visit the website: <http://www.hotelsofia.com>. For those who still did not receive this information, please send this information to mitko.gaidarov@inrne.bas.bg. With best regards and

Scientific Session
Dedicated to Anton N. ANTONOV
22-23 September 2013
SOFIA
Bulgarian Academy of Sciences

*Information Entropy to
with Electrons and Neutrinos
netic Form Factors: The
n Electromagnetic Processes
nucleus Reactions within the
of Neutrinos with Nuclei:
re
me is Prodigy, He is Talented*

of the Internati

23 September 2013, Hall 300

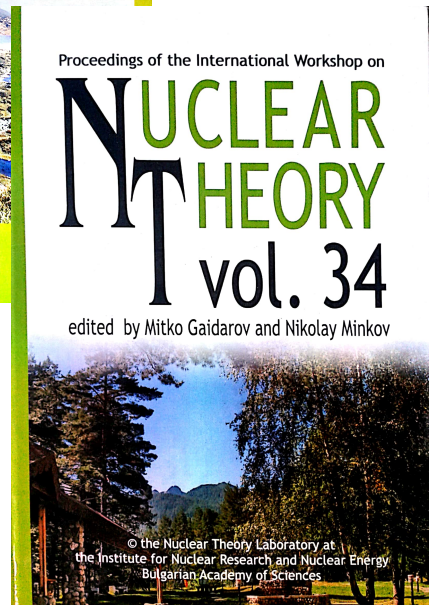
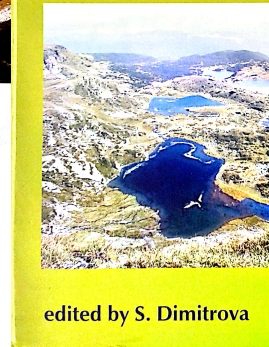
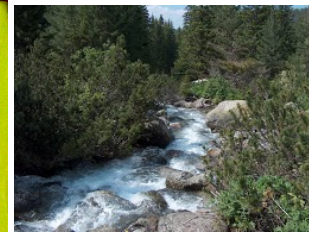
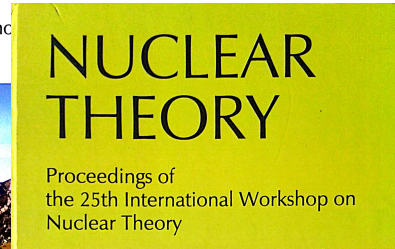
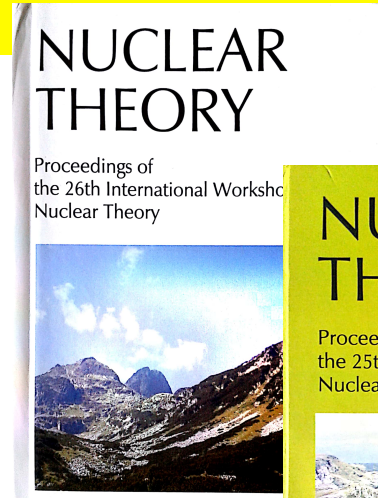
Institute of Nuclear Research and Nuclear Energy, Bulgarian Academy of Sciences
Sofia, Bulgaria

Organized by Mitko Gaidarov

10.30 - **Opening**
10.40 - **Dimitar Tonev**-Director of INRNE-BAS
10.50 - **Elvira Moya de Guerra** (Madrid, Spain): *Nuclear Physics Probed with Electrons. A view from the Sofia-Madrid Collaboration*
11.10 - **Carlotta Giusti** (Pavia, Italy): *Correlations, Overlap Functions and One and Two-Nucleon Knockout Reactions. Studying Correlations with Anton*



International Workshop on Nuclear Theory IWNT- Rila Mountains



June 24-30: IWNT37-2018



Dubna, Russia

“JINR- Scientific Council” Plenipotentiary of Bulgaria

February 2010



Charge form factor and cluster structure of the ${}^6\text{Li}$ nucleus

Research Article

Galina Z. Krumova¹, Egle Tomasi-Gustafsson², Anton N. Antonov^{3*}

$\alpha + d$ separated clusters - exchanging nucleons

Theoretical scheme: folding deuteron and ${}^4\text{He}$ charge densities

A.N. Antonov, PRC 72, (2005) 044307

$$\rho_{6\text{Li}}^{\text{ch}}(\vec{r}) = \frac{3}{2} \int d\vec{r}' \rho_{4\text{He}}^{\text{ch}}(\vec{r} - \vec{r}') \rho_d^{\text{ch}}(\vec{r}')$$

C. Adamuscin, G.I. Gakh and E.T-G. PRC 73, 045204 (2006)



History, Art, Music, Nature ...



From sea to mountains



up to Anton's home and balcony...





Dear Anton,

*It is my pleasure and privilege to congratulate
You for your brilliant career
and thank you for being an example
For the young generations, too.*

*I want to express my respect
And wish you many more ideas, good papers
..and pleasant time...especially
in this Varenna that you (and we all) love so much !*