ANNOUNCEMENT

PACS numbers: 01.10.-m, 01.30.-y, 01.65.+g

ON THE 90TH ANNIVERSARY OF THE P.N. LEBEDEV PHYSICAL INSTITUTE (LPI)

## Contents of the special issues of the journal "Physics–Uspekhi" dedicated to the 90<sup>th</sup> anniversary of the Lebedev Physical Institute (LPI)

DOI: https://doi.org/10.3367/UFNe.2024.08.039783

## 90 YEARS OF THE P.N. LEBEDEV PHYSICAL INSTITUTE OF THE RUSSIAN ACADEMY OF SCIENCES







Physics-Uspekhi, Vol. 67, No. 8, August 2024

The Lebedev Physical Institute

of the Russian Academy of Sciences (LPI) turned 90 years old N N K olachevsky

Schwinger-DeWitt technique in quantum gravity

A O Barvinsky, W Wachowski

From the Spektr-R project to the Spektr-M project:

milestones in space radio astronomy

S F Likhachev, T I Larchenkova

Track technique in present-day physics of atomic nuclei and elementary particles, astrophysics, and nanotechnology

S A Gorbunov, A E Volkov, K I Zhukov, N S Konovalova,

N G Polukhina, N I Starkov, T V Shchedrina

Conditions for the generation of runaway electrons

in an air gap with an inhomogeneous electric field:

theory and experiment

N M Zubarev, G A Mesyats, M I Yalandin

Coherent properties of high-current nanosecond discharge radiation

I N Tilikin, N V Pestovskii, S N Tskhai,

T A Shelkovenko, S A Pikuz, S Yu Savinov X-ray and vacuum ultraviolet spectroscopy

at Lebedev Physical Institute (LPI)

E N Ragozin

On the 60th anniversary of Nobel Prize for discovery

of laser-maser principle

I A Shcherbakov

Physics news on the Internet: August 2024

Yu N Eroshenko

Physics-Uspekhi, Vol. 67, No. 9, September 2024

Quantum memristors: a new approach to neuromorphic computing

P A Forsh, S Yu Stremoukhov, A S Frolova,

K Yu Khabarova, N N Kolachevsky

Current status and development of nuclear physics methods of proton therapy at the Lebedev Physical Institute

I N Zavestovskaya, A V Kolobov, V A Ryabov

Laser thermonuclear fusion and physics of pulsed plasma

with ultrahigh energy density

S Yu Gus'kov

Physics of strong interactions at high energies

A V Leonidov

Computable and noncomputable in the quantum domain:

statements and conjectures

A K Fedorov, E O Kiktenko, N N Kolachevsky

On the thermodynamics of simple systems

S M Stishov

Quantum random number generators, extraction of provably random bit

sequences from Markov chain trajectories

I M Arbekov, S N Molotkov On 'Schrödinger's cat' fringes

V L Gorshenin, B N Nougmanov, F Ya Khalili

Who discovered cosmic rays, and when?

A S Lidvansky

On the centenary of the discovery of submillimeter electromagnetic waves

O V Ovchinnikov, A N Latyshev, M S Smirnov

Physics news on the Internet: September 2024

Yu N Eroshenko

We congratulate the LPI team on this remarkable anniversary and wish them further success in their creative activity!

