



Preface

1602001

Classical and Quantum Gravity

Fubini instantons and gravity effects

Bum-Hoon Lee, Wonwoo Lee, Daeho Ro

1641001

Source of the Kerr-Newman solution as a gravitating bag model: 50 years of the problem of the source of the Kerr solution

Alexander Burinskii

1641002

Invariant quantities in the multiscalar-tensor theories of gravitation

Piret Kuusk, Laur Järv, Ott Vilson

1641003

Conformal gravity and “gravitational bubbles”

V. A. Berezin, V. I. Dokuchaev, Yu. N. Eroshenko

1641004

Unification of dark energy and dark matter based on the Petrov classification and space-time symmetry

Irina Dymnikova

1641005

Geodesics in the field of a rotating deformed gravitational source

K. A. Boshkayev, H. Quevedo, M. S. Abutalip, Zh. A. Kalymova, Sh. S. Suleymanova

1641006

Understanding singularities — Classical and quantum

Deborah A. Konkowski, Thomas M. Helliwell

1641007

Introducing quantum effects in classical theories

J. C. Fabris, O. F. Piattella, D. C. Rodrigues, B. Chauvineau, M. H. Daouda

1641008

Problems of Cosmology

Integrable multidimensional gravitational and cosmological models and applications

V. D. Ivashchuk, V. N. Melnikov

1641009

Cosmology of spin-2 fields

M. D. Maia

1641010

Towards the theory of regular accelerating Universe in Riemann-Cartan space-time

A. V. Minkevich

1641011

Non-metric fluid dynamics and cosmology on Finsler spacetimes

Manuel Hohmann

1641012

Realistic cosmological measurement of distances in the Friedmann universe

Aleksei Nikolaev, Sergey Chervon

1641013

Ground state of the universe in quantum cosmology

Natalia Gorobey, Alexander Lukyanenko

1641014

The strained state cosmology

Angelo Tartaglia

1641015

Black Holes, Neutrino Stars and Other Astrophysical Objects

Black holes and high energy physics

A. A. Grib, Yu. V. Pavlov

1641016

General relativity and neutron stars

D. G. Yakovlev

1641017

Black-and-white hole as a space-time with integrable singularity

Vladimir N. Strokov, Vladimir N. Lukash, Elena V. Mikheeva

1641018

New results in searching for axions by astronomical methods

Yu. N. Gnedin, M. Yu. Piotrovich

1641019

Progress in constraining axion and non-Newtonian gravity from the Casimir effect

V. M. Mostepanenko

1641020

Induced fermionic current by a magnetic flux in a cosmic string spacetime at finite temperature

Eugênio R. Bezerra de Mello, Aram A. Saharian, Azadeh Mohammadi

1641021

Rotating cylindrical wormholes and energy conditions

K. A. Bronnikov, V. G. Krechet

1641022

Effects of gravitational waves on the polarization of pulsars

Shahen Hacyan

1641023

Third Satellite Symposium on the Casimir Effect

Differential Casimir measurements on an engineered sample: Some experimental details

R. S. Decca

1641024

In situ ion gun cleaning of surface adsorbates and its effect on electrostatic forces

Robert Schafer, Jun Xu, Umar Mohideen

1641025

Quantum field theory of the Casimir force for graphene

G. L. Klimchitskaya

1641026

QED and surface plasmons on graphene

M. Bordag, I. G. Pirozhenko

1641027

The Casimir effect for planar layered system

R. Kashapov, N. Khusnutdinov, L. M. Woods

1641028

Impact of anisotropy on the interaction of an atom with a one-dimensional nano-grating

Stefan Yoshi Buhmann, Valery N. Marachevsky, Stefan Scheel

1641029

Hard three-loop corrections to hyperfine splitting

Michael I. Eides, Valery A. Shelyuto

1641030

Vacuum polarization and particle creation in the presence of a potential step

S. P. Gavrilov, D. M. Gitman

1641031

Fiber-optic polarization interferometric sensor for precise electric field measurements

Viktor Petrov, Andrey Medvedev, Leonid Liokumovich, Anton Miazin

1641032

Inverse problem of radiofrequency sounding of ionosphere

E. N. Velichko, A. Yu. Grishentsev, A. G. Korobeynikov

1641033

Casimir force in Schwarzschild metric: Progress report

Munawar Karim

1641034

Van der Waals interactions between polymers with sequence-specific polarizabilities:

Stiff polymers and Gaussian coils

Bing-Sui Lu, Ali Naji, Rudolf Podgornik

1641035

Casimir entropy for ferromagnetic materials

C. C. Korikov

1641036