
CONTENTS

**THERMAL PHYSICS
AND THERMOLOGY**

Aksyonov A. N., Kultyshev A. Yu.,
Puldas L. A.

**Comparative analysis of turboshaft
engines thermodynamic cycles
calculation** 10

Gabdullina R. A., Lopatin A. A.,
Biktagirova A. R., Terentiev A. A.

**The influence of some geometric
parameters on heat transfer
in axial cooling systems of electronic
equipment made on the basis
of split fins** 32

Marysheva M. A., Nugmanov A. Kh.-Kh.,
Aleksanyan I. Yu., Shishkin N. D.,
Aleksanyan A. I.

**Increasing the efficiency
of the method for obtaining paraffin
from asphalt-resin-paraffin deposits
and its hardware design** 52

**FLUID, PLAZMA,
AND GAS MECHANICS**

Stepanov A. V., Zubareva I. A.,
Volgin E. R.

**Hydrodynamic modeling
of laboratory experiments
related to oil displacement
with thermopolymer solution** 77

Kusayko G. N., Igoshin D. E.,
Gubkin A. S.

**Permeability anisotropy in model
porous media formed by periodic
cubic structures** 101

Bubenchikov A. M., Brazovskiy E. B.

**Hydrodynamic model of a funnel
from an explosion of a buried
charge** 115

Kosyakov V. P., Legostaev D. Yu.

**Using elements of machine
learning to solve the inverse
problem of reconstructing
the hydraulic conductivity field
for a filtration problem** 129

**MATHEMATICAL MODELING,
NUMERICAL METHODS
AND SOFTWARE SYSTEMS.
INFORMATION TECHNOLOGIES**

Pisarev A. D.

**Mathematical modeling
of the processes of signal
routing by logic matrix,
information encoding
and decoding in the biomorphic
neuroprocessor** 150

Egorov Yu. A., Zakharova I. G.

**Pipeline for complex
actions recognition
in video surveillance
systems** 165

Pirogov S. P., Cherentsov D. A.

**Mathematical modeling
of forced oscillations
of manometric tubular springs** 183

Ebrahim A. H. A., Busygin A. N.,
Udovichenko S. Yu.

**Mathematical modeling of memristor
resistive switching based on mass
transfer full model of oxygen
vacancies and ions198**