

# CONTENTS

**Yu. G. Ignat'ev**

- Nonminimal macroscopic models of a scalar field based on microscopic dynamics.  
III. Advancing theory on negative masses. .... 5

**A. A. Popov**

- Static spherically symmetric solutions in 4D Einstein-Maxwell-anti-dilaton theory ..... 24

**V. A. Popov**

- Resonant SQUID-based detection of Dark Matter Axions using rectangle cavities ..... 39

**Yu. A. Portnov**

- On free-falling objects in expanding Universe ..... 49

**V. V. Voytik**

- The proper characteristics of frame reference as a 4-invariants ..... 56