### **Contents**

#### Thermal physics and thermology

- 6 Investigation of the temperature distribution in a heterogeneous reservoir during fluid filtration, taking into account thermodynamic effects Suleimanova, M. D., Sharafutdinov, R. F., & Kanafin, I. V.
- 18 Investigation of the temperature field in gas condensate reservoirs taking into account thermodynamic effects Sharafutdinov, R. F., Kanafin, I. V., & Boudjoghra, S.
- 31 Equivalent diffusion ratio distribution in the UGT 15000 low pressure compressor *Aksyonov, A. N.*
- 44 Features of the thermal field during fluid injection into the well during induction heating of the casing Akchurin, R. Z., Davletshin, F. F., Islamov, D. F., Valiullin, R. A., & Ramazanov, A. Sh.

#### Fluid, plazma, and gas mechanics

59 Linear filtration waves in a layered heterogeneous formation *Filippov, A. I., Akhmetova, O. V., & Zelenova, M. A.* 

# Mathematical modeling, numerical methods, and software systems. Information technologies

76 Development of the concept of a multiphase flowmeter *Puritskis, J. V., & Vershinin, V. E.* 

## Development and operation of oil and gas fields

- Oalculated and model profile of reservoir temperature during in-formation oxidation on the example of an oil field Wolf, A. A., Grachev, S. I., Kolev, Zh. M., Mulyavin, S. F., Steshenko, I. G., & Bazhenova, O. A.
- 108 New approaches to simplification of integrated asset models *Padin, E. A., & Yushkov, A. Yu.*
- 128 Optimization of gas extraction of producing wells to increase the efficiency of condensate production Vershinin, V. E., Kovalenko, A. P., Zhenyspaev, D. S., Kovalkova, A. S., & Vydrenkov, A. D.