

Вышел в свет № 9, за 2016 г. (т. 52) журнала «Известия РАН. Физика атмосферы и океана»

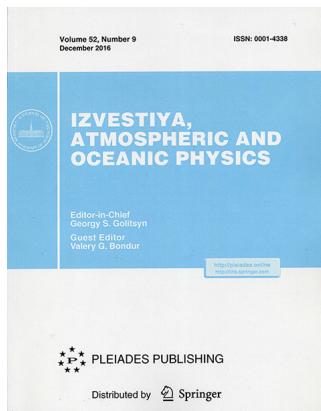
на английском языке, приглашенным редактором которого является директор НИИ «АЭРОКОСМОС»

академик БОНДУР В.Г. В этом выпуске публикуются переводы научных статей журнала Президиума

РАН «Исследование Земли из космоса», которые вышли в 2015 и 2016 годах.

*Представленные в номере статьи охватывают тематику по следующим направлениям:*

1. Космические исследования морей и океанов
2. Космические исследования атмосферных процессов
3. Методические аспекты дистанционного зондирования



## СОДЕРЖАНИЕ № 9 за 2016 г.

Vol. 52, No. 9, 2016

A simultaneous English language translation of this journal is available from Pleiades Publishing, Ltd. Distributed worldwide by Springer. Izvestiya,

Atmospheric and Oceanic Physics ISSN 0001-4338.

### Studying Seas and Oceans from Space

Methods for Retrieval of Sea Wave Spectra from Aerospace Image Spectra

V. G. Bondur and A. B. Murynin

A Study of Sea-Wave Spectra in a Wide Wavelength Range from Satellite and In-Situ Data

V. G. Bondur, V.A. Dulov, A. B. Murynin, and Yu. Yu. Yurovsky

Influence of the Type of Sea Waves on the Backscattered Radar Cross Section at Medium Incidence Angles

V. Yu. Karaev, M. A. Panfilova, and Guo Jie

Experimental Studies of Thermal Radiation Intensity Dependence on Near-Water Wind Speed for Rough Sea Surface

D. S. Sazonov, A. V. Kuzmin, and I. N. Sadovsky

Spectral Characteristics of Rossby Waves in the Northwestern Pacific based on Satellite Altimetry

T. V. Belonenko, A. A. Kubrjakov, and S. V. Stanichny

Polarimetric Radars and Polarimetric SAR Data in Tasks of Detection and Identification of Marine Oil Pollution

A. A. Sineva and A. Yu. Ivanov

Modeling of Oil Spreading in a Problem of Radar MultiAngle Diagnostics of Sea Surface Pollutions

A. Ya. Matveev, A. A. Kubryakov, A. G. Boev, D. M. Bychkov, V. K. Ivanov, S. V. Stanichny, and V. N. Tsymbal

Monitoring Short-Period Internal Waves in the White Sea

A. V. Zimin, I. E. Kozlov, O. A. Atadzhanova, and B. Chapron

Reconstruction of the Three-Dimensional Salinity and Temperature Fields of the Black Sea on the Basis of Satellite Altimetry Measurements

G. K. Korotaev, P. N. Lishaev, and V. V. Knysh

Manifestation Specifics of Hydrodynamic Processes in Satellite Images of Intense Phytoplankton Bloom Areas

O. Yu. Lavrova and M. I. Mityagina

Determination of the Chlorophyll a Concentration by MODIS-Aqua and VIIRS Satellite Radiometers in Eastern Arctic and Bering Sea

P. A. Salyuk, I. E. Stepochnikin, O. A. Bukin, E. B. Sokolova, A. Yu. Mayor, J. V. Shambarova, and A. R. Gorbushkin

On the Spatial—Temporal Variations in the Chlorophyll-a Concentration on the Peter the Great Bay Shelf during the Winter-Spring Phytoplankton

Bloom according to Satellite and Subsatellite Data

E. A. Shtraikhert and S. P. Zakharkov

Satellite Microwave Radiometry of Sea Ice of Polar Regions: a Review

V.V.Tikhonov, M. D. Raev, E.A. Sharkov, D. A. Boyarskil, I. A. Repina, and N. Yu. Komarova

Iceberg Drifting and Distribution in the Vilkitsky Strait Studied by Detailed Satellite Radar and Optical Images

A. A. Kucheyko, A. Yu. Ivanov, A. A. Davydov, and A. Yu. Antonyuk

Sea surface wind and sea ice in the Barents Sea Using Microwave Sensing Data from Meteor-M N1 and GCOM-W1 Satellites in January-March 2013

L.M.Mitnik, M.L.Mitnik, G.M.Chernyavsky, I.V.Cherny, A.V.Vykochko, M.K.Pichugin, and E.V.Zabolotsky

Climatic Variability of Transport in the Upper Layer of the Antarctic Circumpolar Current from Hydrological and Satellite Data

Ju.V.Artamonov, A.V. Fedirko, and E.A.Skripaleva

Convective structures in the Lofoten Basin Based on Satellite and Argo Data

V.A.Alexeev, V.V.Ivanov, I.A.Repina, O.Yu.Laprova, and S.V.Stanichny

## **Studying Atmospheric Processes from Space**

Satellite Monitoring of Trace Gas and Aerosol Emissions during Wildfires in Russia

V. G. Bondur

Determination of the Methane Content in the Atmosphere Using Correlation Radiometer

S. A. Shishigin

Detection and Assessment of Cloud Cover and Precipitation Parameters Using Data of Scanning Radiometers of Polar—Orbiting

and Geostationary Meteorological Satellites E. V. Volkova and A. B. Uspensky

Methods for Automatic Cloud Classification from MODIS Data

V. G. Astafurov, K. V. Kuriyanovtch, and A. V. Skorokhodov

Main Results of Recent Investigations into the Physical Mechanisms of the Interaction of Tropical Cyclones and the Ionosphere

L. B. Vanina-Dart and E. A. Sharkov

Statistical Characteristics of Polar Lows over the Nordic Seas Based on Satellite Passive Microwave Data

J. E. Smirnova, E. V. Zabolotskikh, L. P. Bobylev, and B. Chapron

Variant for Estimating the Activity of Tropical Cyclone Groups in the World Ocean

M. I. Yaroshevich

Novaya Zemlya Bora and Polar Cyclones in Spaceborne SAR and Optical Imagery

A. Yu. Ivanov

## **Methodological Aspects of Remote Sensing**

A Two-Channel Method for Retrieval of the Black Sea Surface Temperature from Landsat-8 Measurements

A. A. Aleskerova, A. A. Kubryakov, and S. V. Stanichny

Sea-Surface Temperature Chart Enhancement in Frontal Zones

A. I. Aleksanin and V. Kim A Multisensory Algorithm of Satellite Radiothermovation

D. M. Ermakov, E. A. Sharkov, and A. P. Chernushich

Data Intercalation Technique for Infrared Channels of the Elektro-L/MSU-GS Imager with the AIRS Infrared Sounder Data

Yu. V. Kiseleva, Yu. M. Gektin, A. A. Zaytsev, A. V. Kuharsky,  
Uspensky

A. N. Rublev, and A. B.