WGNE Blue Book

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What is the **WGNE Blue book**?

It is an online annual publication under the auspices of the CAS/JSC **W**orking **G**roup on **N**umerical **E**xperimentation (**WGNE**).

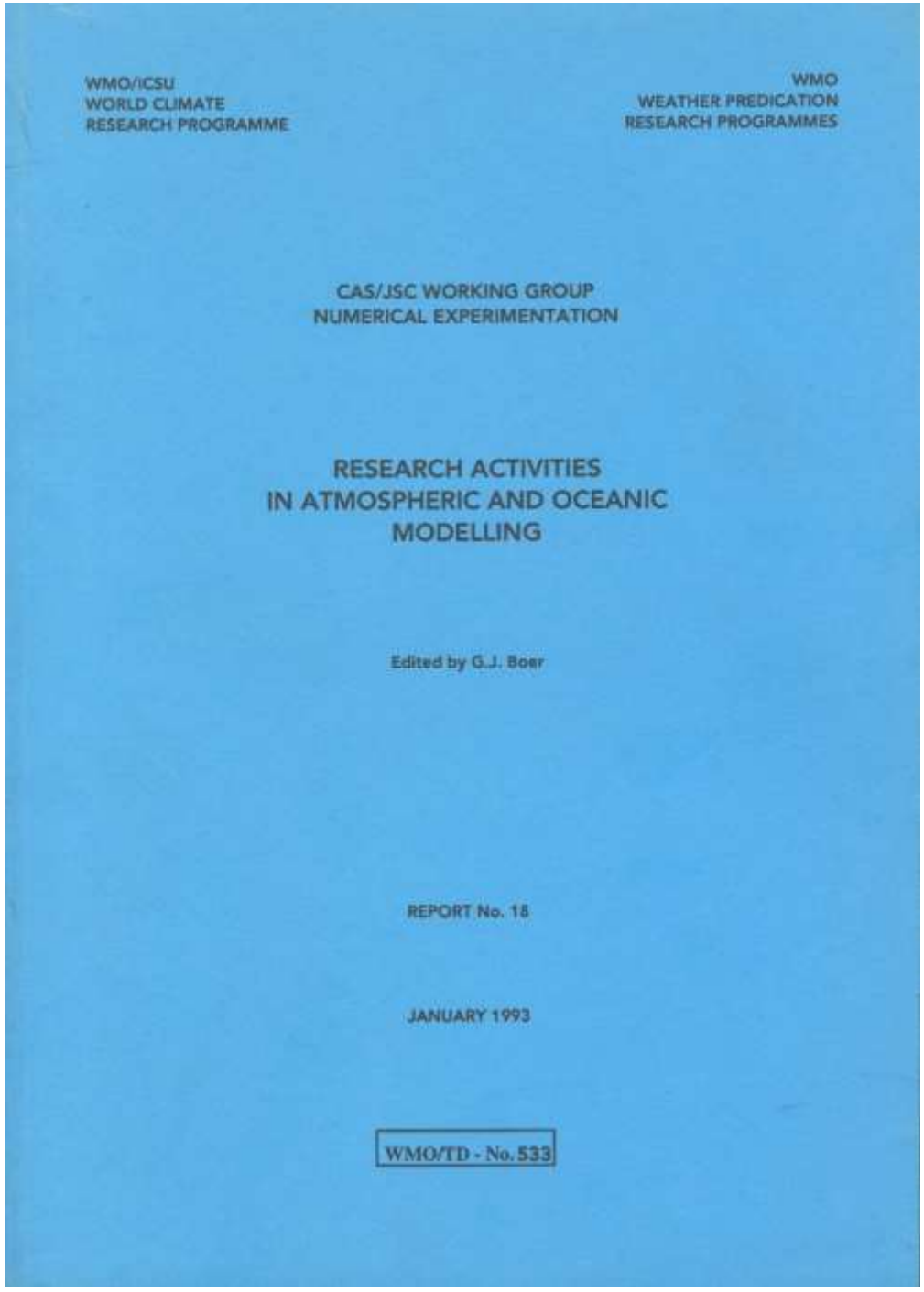
The official title is
RESEARCH ACTIVITIES
IN ATMOSPHERIC AND OCEANIC MODELLING.

It is published by WMO as a WCRP Report.

Why Blue ?

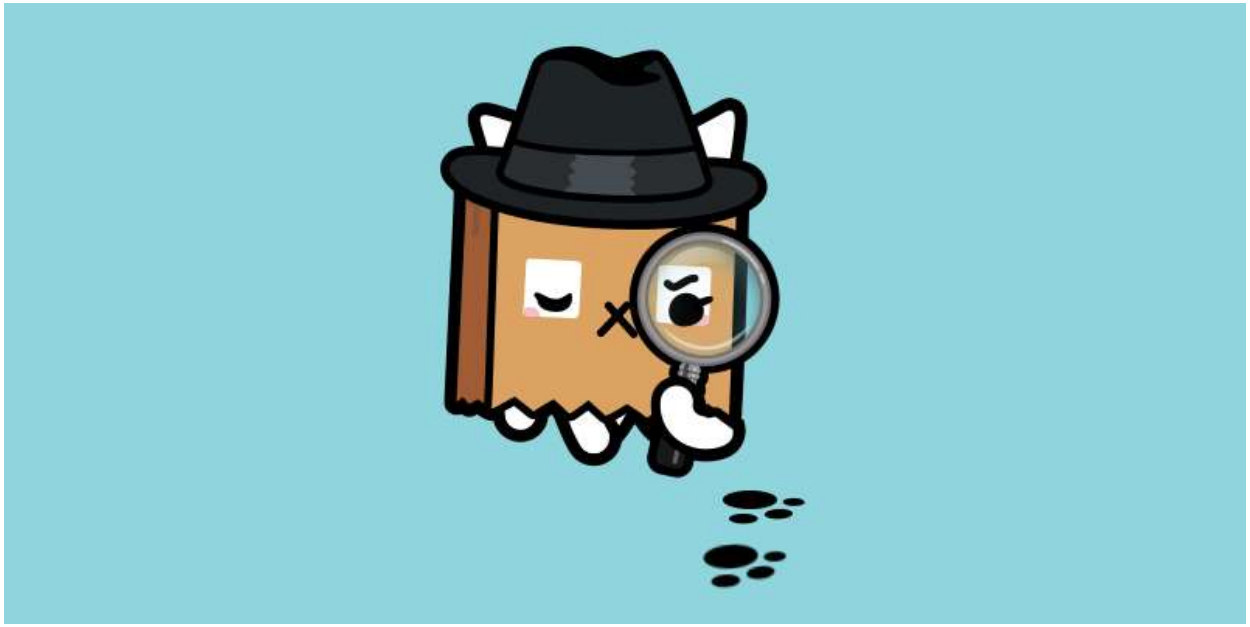
It’s called the Blue Book because of the blue cover of the paper version (1992-2006).

Only online version exists since 2006.



Where is it ?

Search for it on the WGNE site at http://wgne.meteoinfo.ru/publications/wgne-blue-book/!



http://wgne.meteoinfo.ru/publications/wgne-blue-book/

WORLD METEOROLOGICAL ORGANIZATION
Weather · Climate · Water

Working Group on Numerical Experimentation

WCRP World Climate Research Programme

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Commission for Atmospheric Sciences (CAS)

WGNE blue book

The WGNE Blue Book publication is an attempt to foster an early interchange of information among scientists developing numerical models for the purpose of climate simulation and for forecasting on various timescales.

It has been published as a blue-covered book since the early 1970th. Only electronic version is available since 2006.

The WGNE Blue book is published once a year.

The WGNE Blue Book issues

The WGNE Blue book call for contributions

SUBMIT A CONTRIBUTION TO THE WGNE BLUE BOOK

LATEST NEWS

- Live streaming of International Conferences on Subseasonal to Decadal Prediction (17-21 Sept.)
- The GOV Symposium — OceanPredict '19 — 6-10 May 2019, Halifax, Canada
- S2S Newsletter No.9 was issued
- Announcement for reanalysis session at AMS conference
- First Announcement "CMIP6 Model Analysis Workshop". 25-28 March 2019.Barcelona (Spain)

Important dates

The call for contributions is usually published in February.

The deadline for contributing is the beginning of May.

The Blue book is published at the beginning of July.

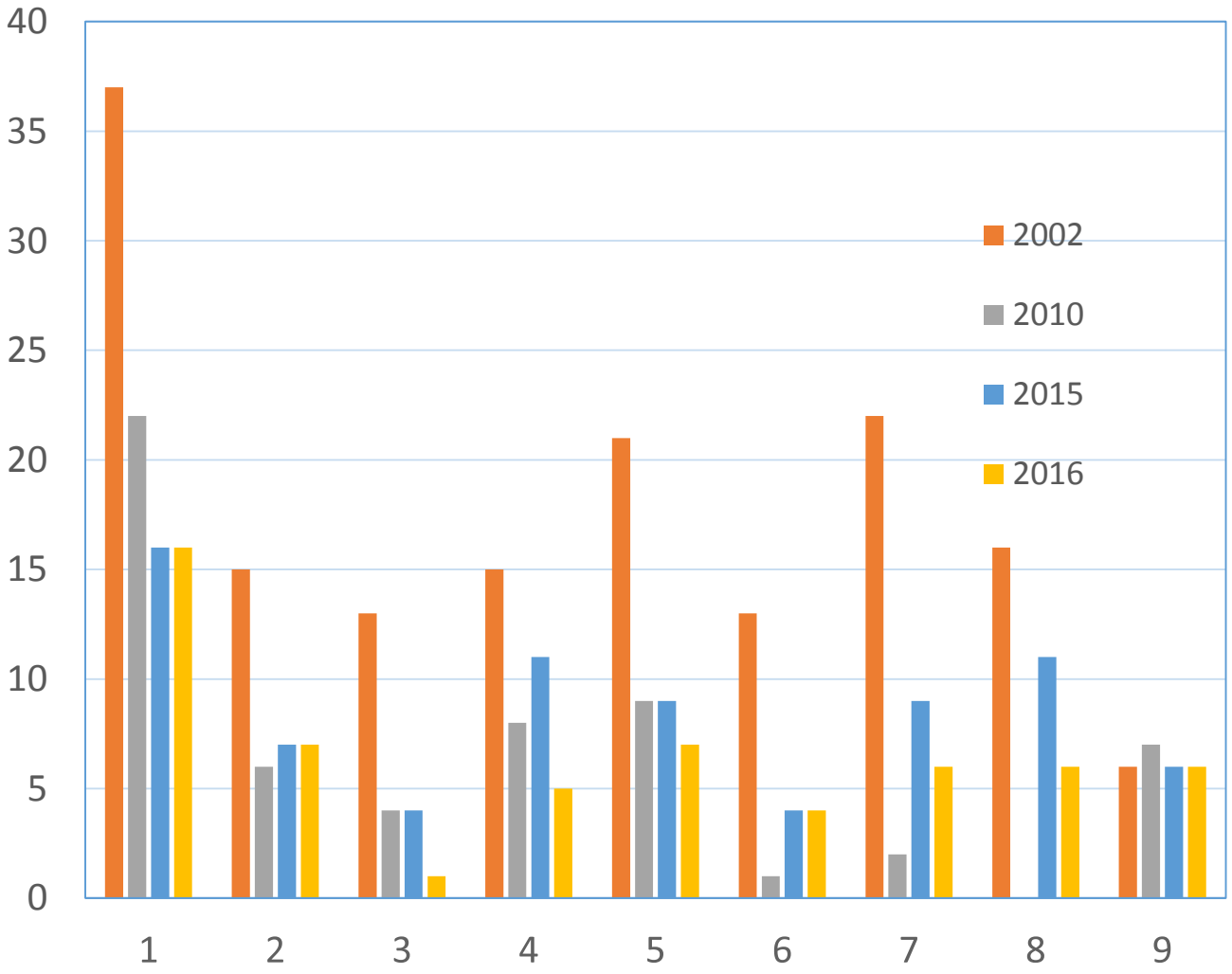
Sections

1. Assimilation of atmospheric and land observations. Data impact and sensitivity studies. Methodological advances.
2. Data sets, diagnostic and dynamical investigations, statistical post-processing, reanalysis, and associated studies.
3. Computational studies including new techniques, parallel processing, GPUs. Effects of model resolution.
4. Parameterization of atmospheric and surface processes, effects of different physical parameterizations.
5. Development of and studies with regional and convective-scale atmospheric models and ensembles.
6. Developments in global forecast models, case studies, predictability investigations, global ensembles.
7. Global and regional climate models, sensitivity and impact experiments, response to external forcing, monthly and seasonal forecasting.
8. Development of and advances in ocean, sea-ice, and wave modelling and data assimilation.
9. Development of and studies with coupled and Earth system models and data assimilation systems.
10. Forecast verification: methods and studies

The number of papers from different countries

	1992	2015	2016	2017	2018
USA	**58**	**26**	16	**17**	14
Germany	27	1	1	3	3
USSR/Russia	22	17	16	15	**22**
Japan	17	**26**	**22**	13	13
Canada	15	-	-	-	1
UK	22	-	-	1	-
France	10	5	3	5	1
Australia	9	-	-	2	3
Brazil	-	1	-	-	5
Italy	-	3	1	-	-
China	2	1	-	-	1
Denmark	3	-	-	1	-
Total	203	77	58	60	62

Distribution of papers over sections (2002-2016)



Total:

2002 : 158
2010: 59
2015 : 77
2016: 58

1- assimilation

2- datasets, reanalysis

3-computing, resolution effects

4-parameterizations

5-regional models

6-global models

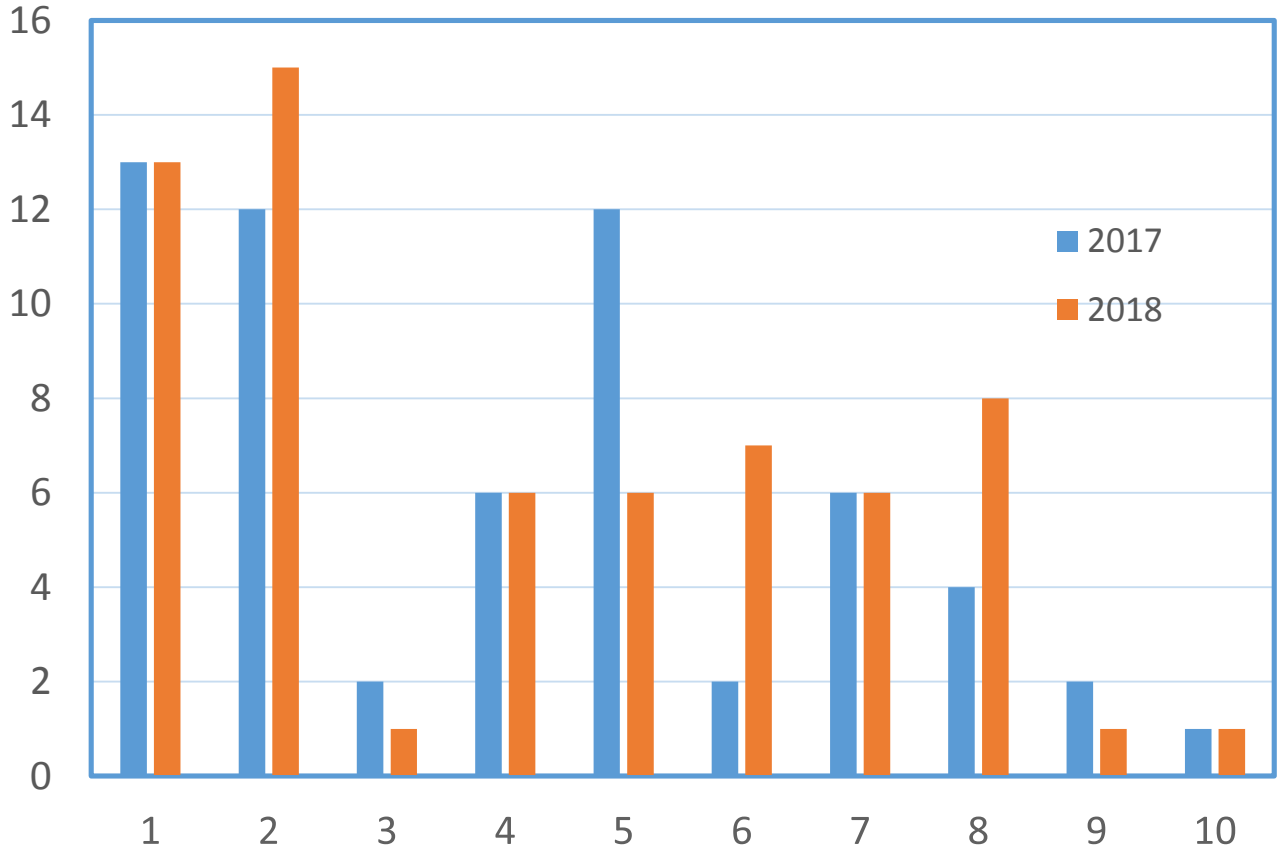
7-climate

8-ocean,waves

9-coupled models

Distribution of papers over sections (2017-2018)

Total:
2017: 60
2018: 62



1- assimilation

2- datasets, reanalysis, diagnostic studies

3-computing, resolution effects

4-parameterizations

5-regional models

6-global models

7-climate, seasonal

8-ocean,waves

9-coupled and ESM

10 -verification

The Blue book is not peer-reviewed.
It has no DOI.
It's not in SCOPUS or Web Of Science.

What is it useful for ?

For early interchange of information between scientists

As an announcement of already published papers or papers ready for publication

In 2016- 2018 the information about updates of about 20 forecast systems was published in the Blue Book.

2016:

L. Auger, E. Bazile, L. Berre, et al. The 2015 upgrades of the Météo-France NWP system.

V. Tallapragada et al. Upgrade of the NCEP GFS to a 4D Hybrid Ensemble Variational Data Assimilation.

L. Torrisi, F. Marcucci. The Italian Air Force Met Service operational NWP system.

J. McQueen. NWS HYSPLIT atmospheric transport and dispersion modeling.

2017:

H.Yonehara, T.Tokuhiro, R.Nagasawa
Upgrade of parameterization schemes in JMA's operational global NWP model.

E. Rogers, J. Carley, B. Ferrier, et al. Upgrades to the NCEP North American Mesoscale (NAM) System.

C.Alexander,S.Benjamin, D.Dowell et al. Hourly updated NOAA 3km High-Resolution Rapid Refresh model.

X. Yang. The 2016 upgrade of the operational NWP at DMI.

L.Batté, L.Dorel, J.F.Guérémy and D.Volpi. A new seasonal forecast system for Météo-France: features and performances.

2018:

A. Frassoni, D. A. Franca, A.D. Chovert, et al. PREP-CHEM-SRC VERSION 1.8: improvements to better represent local urban and biomass burning emissions over South America.

C.F.Bastarz, J.P.Bonatti, L.F.Sapucci et al. Current status and future plans for the CPTEC global ensemble prediction system.

G.S.Rivin, I.A.Rozinkina, R.M.Vilfand, et al. COSMO-Ru: operational mesoscale numerical weather prediction system of the Hydrometcenter of Russia. Current status and recent developments.

M. Denhard, A. Rhodin, H. Frank, et al. The global ICON Ensemble.

2018:

H.Yamaguchi, D.Hotta, T.Kanehama et al, Introduction to JMA's new Global Ensemble Prediction System.

H. Yonehara, R. Sekiguchi, T. Kanehama et al, Upgrade of JMA's s operational global NWP system.

J.McQueen, P.Lee, I.Stajner, et al. NOAA's National Air Quality Forecast Capability for Ozone and Fine Particulate Matter

All papers were 2 pages or less. Only two papers were allowed to be longer.

2015: Z. Janjic, V. Djurdjevic, R. Vasic, T. Black.
Challenges and Opportunities in Modeling of the Global Atmosphere

2017: G. Balsamo, K. Mogensen, S. Keeley, J.-R. Bidlot, S. Boussetta, E. Dutra, N. Wedi.
Coupling of oceans and land surfaces in the ECMWF Integrated Forecasting System: Sensitivity and impact of diurnal and synoptic variability on medium-range skill

In 2018 the WGNE site wgne.meteoinfo.ru was modified to meet the WMO requirements:

- official logo,
- Google analytics monitoring,
- changes that allow the site to be defined into WMO corporate search engines accounts together with the rest of the official WMO sites,
- references to WMO Extranet, etc

I want to thank

- the WGNE members for their support and for providing new contacts for the mailing list
- Alexander Skomskov and Alexander Smirnov from the Hydrometcenter of Russia for their permanent help with the Web version of the Blue book and the WGNE site
- Eugenia Kalnay and Fedor Mesinger for their kind support
- Everybody in this hall for their attention!

Thank you !