

Consortium



for

Small-Scale Modelling

# *Newsletter*

*December 2020*

*No. 20*

Deutscher Wetterdienst

Ufficio Generale Spazio Aereo e  
Meteorologia

Instytucje Meteorologii i Gospodarki  
Wodnej

Agenzia Regionale per la Protezione  
Ambientale dell'Emilia Romagna  
Servizio Idro Meteo Clima

Centro Italiano Ricerche  
Aerospaziali

Israel Meteorological Service

MeteoSwiss

ΕΘΝΙΚΗ ΜΕΤΕΩΡΟΛΟΓΙΚΗ  
ΥΠΗΡΕΣΙΑ

Administratia Nationala de  
Meteorologie

Federal Service for Hydrometeorology  
and Environmental Monitoring

Amt für GeoInformationswesen  
der Bundeswehr

Agenzia Regionale per la Protezione  
Ambientale del Piemonte

---

[www.cosmo-model.org](http://www.cosmo-model.org)

Editor: Mihaela Bogdan(NMA)

---

The CC license "BY-NC-ND" allows others only to download the publication and share it with others as long as they credit the publication, but they can't change it in any way or use it commercially.



---

Publisher

COSMO  
Consortium for Small Scale Modelling  
cosmo-model.org

Editor

Mihaela Bogdan, NMA  
mihaela.bogdan@meteoromania.ro

---

Contributions to COSMO Newsletter No. 20 have DOIs.  
These are indicated on the title page of each contribution.  
The DOI format is 10.5676/dwd\_pub/nwv/cosmo-nl\_20\_NN, where NN is the contribution number.

---

Consortium for Small-Scale Modelling mounts further efforts towards replacing the limited-area model COSMO with the Limited Area Mode of the ICON modelling framework ICON (ICON-LAM). Considerable progress is made. First-hand information is available at the web page of the priority project C2I (<http://www.cosmo-model.org/content/tasks/priorityProjects/c2i>), see also the PP C2I presentation at the 22nd COSMO General Meeting ([http://www.cosmo-model.org/content/consortium/generalMeetings/general2020/plenary/C2I\\_GM20\\_Overview.pdf](http://www.cosmo-model.org/content/consortium/generalMeetings/general2020/plenary/C2I_GM20_Overview.pdf)).

As regards the COSMO Model, recall that the version 6.0 will be the last official COSMO-Model release (expected in early 2021). Beyond the version 6.0, only the maintenance of the COSMO code, including bug fixes, will be performed over some years to come. The COSMO documentation (with DOIs) will be updated and “frozen” together with the model code. Meanwhile the documentation of the COSMO version 5.05 with DOIs has become available. It can be downloaded from the DWD landing page, [https://www.dwd.de/EN/ourservices/cosmo\\_documentation/cosmo\\_documentation.html](https://www.dwd.de/EN/ourservices/cosmo_documentation/cosmo_documentation.html), or from the COSMO web page, <http://cosmo-model.org/content/model/documentation/core>.

An important step of legal order was made. The development partnership agreement between DWD and COSMO was signed in March 2020. The contractual partners of the cooperation agreement for the ICON Modelling Framework, viz., DWD, MPI-M, KIT, and DKRZ, granted “the participating national meteorological services as well as other major members of COSMO (see <http://cosmo-model.org/>) the right, which is non-exclusive, free of charge and unlimited in time, to use the ICON Modelling Framework for non-commercial Research and Development and for their Official Duty purposes”. The liaisons between the COSMO consortium and the ICON community go through DWD that has the responsibility to ensure that the development partnership between DWD and COSMO is in accordance with the cooperation agreement between the ICON contractual partners.

Three new priority projects and one new priority task are launched (start in September 2020). These are PP KENDAScope (“KENDA from Surface to Cloud Observations Progressive Extension”, implemented within the framework of Working Group 1, PP leader is Christoph Schraff, DWD), PP MILEPOST (“MachIne LEarning-based POST-processing”, WG4, Andrzej Mazur, IMGW), PP PROPHECY (“PRObabilistic Prediction at High-resolution with EnhanCed perturbation strategY”, WG7, Chiara Marsigli, DWD), and PT VAINT (“Vegetation Atmosphere INTeractions”, WG3b, Merja Tölle, University of Kassel, Germany). Detailed information about the above PPs and PT is available at the COSMO web (see <http://www.cosmo-model.org/content/tasks/priorityProjects> and <http://www.cosmo-model.org/content/tasks/priorityTasks>).

Because of the COVID-19 pandemic, the 22nd COSMO General Meeting went online. It was held over two weeks, from 31 August through 11 September 2020. The WG, PP and PT meetings were held 1-7 September, followed by the plenary sessions 8-11 September. In this way, the overlap between the WG, PP and PT meetings was largely avoided, and numerous COSMO scientists were able to attend several meetings (which ran mostly in parallel on Monday and Tuesday afternoon during the previous in-person COSMO General Meetings). The online WG, PP and PT meetings proved to be rather efficient and were generally a success. Admittedly, this was not quite the case for the plenary sessions, where the interaction between the plenary speakers and the audience was not sufficiently intensive (very few or no questions, etc.). This problem associated with the online plenary-session format seems difficult to overcome. On the other hand, the final discussion was remarkably vivid and fruitful.

---

[doi:10.5676/dwd\\_pub/nwv/cosmo-nl\\_20\\_01](https://doi.org/10.5676/dwd_pub/nwv/cosmo-nl_20_01)

Also worthy of mention is the STC meeting whose second part was held on Thursday (September 10) after the plenary sessions. This is at variance with the previous STC meetings (during the COSMO General Meetings) that were held on Monday and Tuesday, i.e. prior to the plenary sessions. Holding the second part of the STC meeting after the plenary sessions is very advantageous. Since the STC members attend the plenary sessions, the SPM should not reiterate, in his report to the STC, what is conveyed by the WG co-ordinators and the PP and PT leaders during their overview plenary talks. This makes the STC meeting shorter and more targeted and generally more efficient. Note that the SMC also took advantage of the online format and organized their meeting after the COSMO GM (the SMC meeting took place 21 September and 5 October). All in all, the online COSMO General Meeting 2020 appeared to be rather successful. The organization of the online GM took a great deal of effort, however; arguably, it took somewhat too much effort given the outcome. Improvements are clearly required should the next COSMO General Meeting go online. During the teleconference held on October 12, the STC reviewed the organization process of the virtual COSMO GM 2020 and summarized the lesson learnt.

Finally, I would like to thank the colleagues who contributed to the current issue of the COSMO Newsletter.

Dmitrii Mironov  
COSMO Scientific Project Manager

---

**Table of Contents**

<b>1</b>	<b>Editorial</b>	<b>1</b>
	<i>Dmitrii Mironov</i> . . . . .	1
<b>2</b>	<b>Working Group on Physical Aspects: Soil and Surface</b>	<b>3</b>
	Calibration of high resolution COSMO model over Switzerland: CALMO-MAX results <i>Voudouri A, Carmona I, Avgoustoglou E, Levi Y, E. Bucchignani and J.M.Bettems</i> . . . . .	3
<b>3</b>	<b>Working Group on Verification and Case Studies</b>	<b>10</b>
	Common Verification Activity during JJA 2018–MAM 2019: Main Results <i>Kirsanov A., Gofa F., Boucouvala D., Batignani F., Bogdan M., Linkowska J., Pflüger U., Tesini M.S., and A. Bundel</i> . . . . .	10
	Common Area Verification Activity with Rfdbk/MEC Application: MAM 2020 First Results <i>A. Iriza-Burcă, J. Linkowska and F. Fundel</i> . . . . .	18
<b>4</b>	<b>Mission Reports</b>	<b>31</b>
	COSMO-EPS results for Poland with ANN-based calibration coupled with space-lag correlation application <i>A. Mazur, G. Duniec</i> . . . . .	31
	EPS-Case study of serious HIW event in Poland, August 11th, 2017.Increasing resolution approach – from 7 km to 0.7km <i>A. Mazur, G. Duniec</i> . . . . .	37
	<b>Appendix: List of COSMO Newsletters and Technical Reports</b>	<b>44</b>