

1 Introduction

This is the fourth Newsletter of the Consortium for Small-Scale Modelling (COSMO). Currently, the Newsletter is prepared once a year in January/February, with the opportunity to add special issues at irregular intervals if required.

The basic purpose of the Newsletter is threefold:

- to review the present state of the model system and its operational application and to give information on recent changes;
- to present the principal events concerning COSMO during the last year and to summarize recent research and development work as well as results from the model verification and diagnostic evaluation;
- to provide the meteorological community and especially all external users of the model system with information on COSMO's activities and with new information on the model system and its current forecast quality.

The present Newsletter is organized as follows. Section 2 gives a general overview of the current organizational structure of the COSMO consortium. The present state of the model system, i.e. the LM-package, is summarized in Section 3, including a short description of the model and its data assimilation system, information on the preprocessor programs to provide initial and boundary conditions, and finally remarks on postprocessing utilities and hints on the available model documentation.

Operational and pre-operational applications of the LM-package at the COSMO meteorological centres are described in Section 4. Information about the recent changes to the model system as well as changes in the model set-up at the meteorological centres are outlined in Section 5. Section 6 gives you an overview of the six COSMO Working Groups and their recent research and development activities.

Section 7 provides short information on the main COSMO meetings and events during the last year. Other activities such as internal visits and guest scientist programs are also included. Finally, some forthcoming events planned for this year are announced.

Recent results from the verification of the operational models, both for surface parameters and for vertical profiles, are summarized in Section 8. This section also includes contributions related to the development of new methodologies for model verification as well as results from the verification of new model components.

Section 9 is devoted to reports on various research topics related to model development and application, including data assimilation, numerics, physics, interpretation, and technical aspects. Finally, all COSMO activities related to the LM-system within international and national projects of the member meteorological services are listed in Section 10. This list will be updated in the forthcoming issues.

The Appendices concern the use of the GRIB binary data format for the output and input analyses and forecast fields. These lists will also be updated, and we hope they will be helpful, especially for new users of the LM and its forecast products.

Information about COSMO and the LM can also be obtained from our web-site **www.cosmo-model.org** or the mirror site **cosmo-model.cscs.ch**. Many thanks to Theodore Andreadis from HNMS for running, updating and supervising the web-sites.

The present organization of the Newsletter may change in future. Please contact the editors for any comments and suggestions as well as proposals for items to be included or excluded in the next issue. The editors recognize that typographical and other errors or inconsistencies may be present. We apologize for this, and your assistance in correcting them will be welcome.

We would also like to encourage all the scientists in the COSMO Working Groups to document their work, e.g. in form of a short progress summary or a longer report, to be included in the next Newsletter. Special thanks to all who provided contributions and graphical material for the present issue:

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