Status of the LM

- Option for use of Wind profiler/RASS reports
- Adjustments for cloud ice within nudging

- SLEVE coordinate
- Height of snow-fall limit
- Adaptions for the cloud ice scheme

- Reformulation of 10-m wind calculation at SYNOP stations

LM Version 2.16 (28 March 2002)
- Bug correction in the surface layer scheme

LM Version 2.17 (8 May 2002)
- Multi-layer soil model
- Kain-Fritsch convection scheme
- Optimizations for the TKE-scheme and for I/O

LM Version 2.18 (2 July 2002)
- Prognostic Precipitation
- Boundary data defined on frames
- Changes in the 2-timelevel scheme

Planned releases in 2002 / 2003
- Tuning of the cloud-ice scheme (Parallel test suite)
- Code reorganization and optimization of the TKE scheme
- Adaptions for the CLM (restart, NetCDF, external parameters)
- ...
Meetings and WG Activities

7th Meeting of the Steering Committee
20 December 2001, Roma, Italy
- approval of the WP
- WP lists and descriptions on the Web (member area)
- COSMO LEPS at ECMWF

WG3-WG5 Parallel Meeting
6-8 February 2002, Torino, Italy
- Short abstracts, discussion results on the web-site

Meeting of the WP Coordinators
23 May 2002, Offenbach, Germany
- current status of WPs, model deficiencies
- proposals for new WPs
- some preparations for the annual meeting

3rd LM User Workshop
27-29 May 2002, DWD, Langen, Germany
- Research activities with LM at universities and institutes
- Participation of CLM group
- Tutorial

WG6 Meeting
12 June 2002, DWD, Offenbach, Germany
- Interpolation programs LM2LM, INT2LM - Organisation of a LM data assimilation cycle

COSMO-Workshop on Numerical Methods
24 September 2002, Warsaw, Poland

4th COSMO General Meeting
25- 27 September 2002, Warsaw, Poland
Guest Scientists

- Guest Scientists
  Zavisar Janjic (NCEP) at DWD in June (4 weeks)
  Bill Skamarock (NCAR) at DWD in September (2 days)

- Internal Visits
  A. Gassmann, D. Cesari, ...

COSMO Publications in 2002

Newsletter No. 2 (19 + 7 Contributions)
TR No. 3: Monotonic Diffusion (Doms)
TR No. 4: LLM (Herzog, Vogel, Schubert)
TR No. 5: EUCOS (Bettems)
E. Heise and R. Schrodin:
Aspects of Snow Modelling in the Operational Short Range Weather Prediction Models of the German Weather Service.

H.-J. Herzog, G. Vogel and U. Schubert:
LLM - a Nonhydrostatic Model Applied to High-Resolving Simulations of Turbulent Fluxes over Heterogeneous Terrain.
*Theoretical and Applied Climatology*, 73.

M. Anadranistakis, K. Lagouvardos, V. Kotroni and K. Skouras:
Combination of Kalman Filter and Empirical Method for the Correction of Near-Surface Temperature Forecasts: Application over Greece.

Meso-Gamma Scale Forecasts Using the Non-hydrostatic Model LM.
*Meteorology and Atmospheric Physics*, 78.

J. Steppeler, R. Hess, U. Schättler and L. Bonaventura:
*Meteorology and Atmospheric Physics*, 78.

J. Steppeler, H.-W. Bitzer, M. Minotte, and L. Bonaventura:
Nonhydrostatic Atmospheric Modeling using a z-Coordinate Representation.

M. Tomassini, G. Gendt, G. Dick, M. Ramatschi and C. Schraff:
Monitoring of Integrated Water Vapour from Ground-Based GPS Observations and their Assimilation in a Limited-Area NWP Model.
*Physics and Chemistry of the Earth*, 27.

G. Doms:

G. Doms, A. Gassmann, E. Heise, M. Raschendorfer, C. Schraff and R. Schrodin:
Parameterization Issues in the Non-Hydrostatic NWP-Model LM.
*ECMWF Seminar Proceedings 2002*.
### Registered Scientific Users of LM outside COSMO

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<thead>
<tr>
<th>Institution</th>
<th>Country</th>
<th>Research Activities</th>
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<td>Cloud physics</td>
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<td>Z-coordinate, turbulence</td>
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*new in 2001/2002*