Geophysical Research Abstracts
Vol. 19, EGU2017-16974, 2017
EGU General Assembly 2017

The NWP system at Météo-France and the low cloud forecast: still a challenge ?

Eric Bazile
Météo-France/CNRS CNRM-UMR3589, Toulouse, France (eric.bazile@meteo.fr)

The Numerical Weather Prediction (NWP) system, used at Météo-France, is based on the IFS/ARPEGE software developed in collaboration with ECMWF. The Non-Hydrostatic (NH) Limited Area Model AROME is embedded in the IFS/ARPEGE software and was developed within the ALADIN collaboration and more recently also with the HIRLAM Consortia.
After the description of the Météo-France NWP system, the boundary layer parameterization used in ARPEGE and AROME and the validations will be described. However, in some situations the low cloud or fog forecast is underestimated and the reasons are, unfortunately, not easy to determine: initial conditions such as surface or vertical profile, weaknesses in the parameterization, etc ... Some examples will be shown and several experiments with different options in the physics (closure, entrainment,..) will be discussed.