PREFACE

The MM5 tutorial class is sponsored by the Mesoscale and Microscale Meteorology Division (MMM) at the National Center for Atmospheric Research. The class of January 2005 is the final official MM5 tutorial offered by the Mesoscale Prediction Group of MMM. The first tutorial class was offered in 1993, and a total of nearly 800 participants were trained at NCAR during the past 12 years.

The tutorial notes are available on the MM5 Web page (URL: *http://www.mmm.ucar.edu/mm5/ documents/tutorial-v3-notes.html* and *http://www.mmm.ucar.edu/mm5/documents/ MM5_tut_Web_notes/TutTOC.html*). An online tutorial, which takes a new user step by step through how to set up and run the MM5 modeling system programs, is available at *http:// www.mmm.ucar.edu/mm5/mm5v3/tutorial/teachyourself.html.* General information regarding the MM5 modeling system, model applications, documentation and user support can also be found on the MM5 Web page (*http://www.mmm.ucar.edu/mm5/mm5-home.html*).

This version of the notes is edited for MM5 modeling system Version 3, release 3-7. The major changes in the release 3-7 are improvements to the MM5 code. The pre- and post-processors did not change much between release 3-6 and 3-7. Most of the chapters in these notes have therefore not changed much, except chapter 8: MM5, which reflect all the new code development in release 3-7.

The MM5 3DVAR code was officially released in June 2003. An introduction to this code has been added, and is available in Appendix E. More information on the 3DVAR system can be obtained from URL: *http://www.mmm.ucar.edu/3dvar*).