# Introduction

With the increase of computational power available to ECMWF, more and more accurate forecasts are in principle possible by increasing the resolution of the forecast model, as long as the numerical techniques used in the integration of the equations continue to be accurate and efficient for the intended resolution.

For a long time there has been concern whether the spectral technique will continue to be competitive at higher resolutions. Alternatives such as faster Legendre transforms, double Fourier series or icosahedral grids have been proposed. The semi-implicit method used at ECMWF might not be accurate enough for higher resolutions and a more implicit method could well be needed. Also at higher resolutions nonhydrostatic effects might have to be taken into consideration.

It was therefore timely to hold a workshop with the aim of looking into the future of numerical techniques and exploring new ideas to guide us in further improvement of the model from the point of view of accuracy and efficiency.

The workshop followed the usual pattern of one and a half days of lectures followed by working group sessions. These Proceedings contain the reports of the working groups followed by the extended abstracts of the invited lectures.

ECMWF thanks all the participants for their contributions to a successful workshop.