ALADIN in Poland - recent operational and R&D activities

#### EWGLAM/SRNWP – Madrid 2008

### ALADIN at IMWM - resources

• *team - 5-6 people* 

• main available hardware -

 supercomputer ALTIX 3700
 16 Itanium2 CPU's / 32 GB RAM
 (32 CPU's at ALTIX 4700 expected also 16 CPU's cluster)

• coupling transfer -

Internet / practical transfer rate - 2Mb/s

# ALADIN at IMWM – operational suite

- domain 2270 km x 2270 km
- grid size 169 x 169 x 31 (without coupling zone)
- resolution 13.5 km
  (10.0 km still pre-operational)
- *time-step 600 sec.*
- *range* 54*h*
- coupling ARPEGE, 3h
- runs 2 per day
- post-processing 4 domains

### ALADIN at IMWM – R&D activities

- *Fields of interest:* 
  - high-resolution forecast verification
  - forecast scaling / adaptation
    - ( e.g. development of robust D-MOS )
  - microphysics parameterization
  - VFE discretization
- *Future plans:* 
  - high-resolution prediction with AROME

# ALADIN at IMWM – high-resolution verification

- Main directions:
  - developments in joint fuzzy and patern recognition attitude to verification
  - application of robust statistics to forecast verification
  - developments in scale separation for precipitation field analysis
  - studies in comparision and evaluation of NWP models
    based on various scores, methods and data

# ALADIN at IMWM – D-MOS



Upper figure – temperature forecast error for Ustka synoptic station



Lower figure – D-MOS corrected temperature forecast error for the same station