



LITHUANIAN HYDROMETEOROLOGICAL SERVICE
under the Ministry of Environment



VILNIUS UNIVERSITY
Division of Hydrology & Climatology

HIRLAM research at LHMS and VU

Paulius Jalinskas

OUTLINE

- **Projects**
- **Students/working group**
- **Present works**
- **Plans**

PROJECTS

BALTIC HIRLAM, 2003-2004

- *HIRLAM course at MISU*
- *St Petersburg meeting*



Contacts with SMHI, FMI, TU and others

NetFAM

- *2005, Tartu workshop on clouds*
- *2005, DM studies at RSHMU*
- *2006, St Petersburg NHM summer school*



STUDENTS/WORKING GROUP

3 persons

***VU, FACULTY OF NATURAL SCIENCES,
DEPARTMENT OF HYDROLOGY AND
CLIMATOLOGY***

1 person

VU, FACULTY OF PHYSICS

STUDENTS/WORKING GROUP

3 persons

*VU, FACULTY OF NATURAL SCIENCES,
DEPARTMENT OF HYDROLOGY AND
CLIMATOLOGY*

1 person

VU, FACULTY OF PHYSICS

- NO "REAL" AND ACTIVE SUPERVISOR*
- RESISTANCE*

PRESENT WORKS

HIRLAM 1D

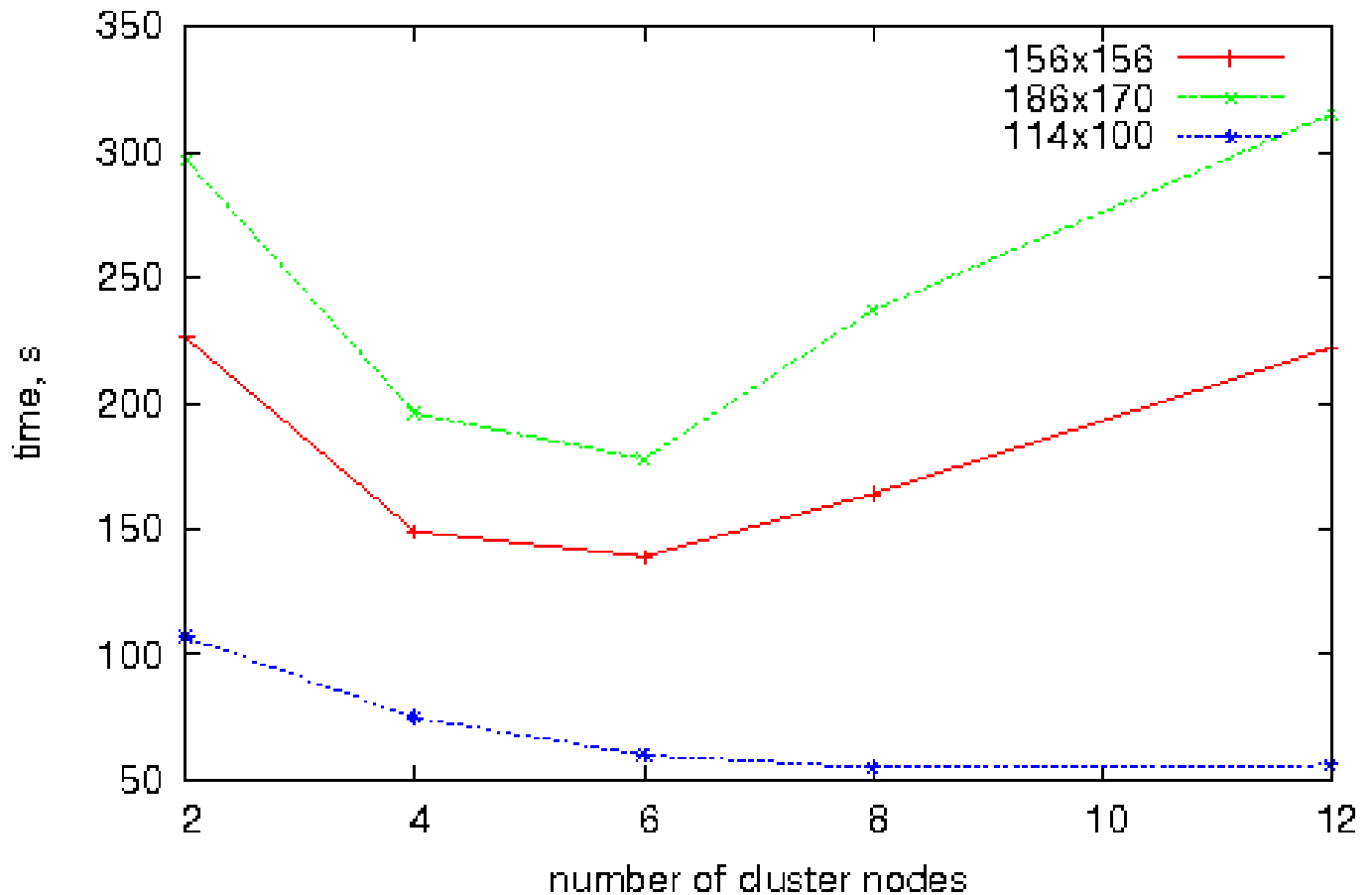
- *KF convective parameterization scheme;*
- *Radiation scheme*

PC CLUSTER with HIRLAM 6.4.0

- *getting familiar with parallel computing;*
- *experimenting and tuning;*
- *looking for the reasonable domain size*

12 nodes PC cluster
INTEL PIV
Gigabit Ethernet
2 GB RAM

6h forecast vs. node number



PLANS

- Evolving working group for the NWP system implementation and development at LHMS.
- HIRLAM system installation and setup of modeling environment.
- LHMS PC cluster system tests within HIRLAM modeling environment:
 - PC cluster configuration and parallelization tests
 - Domain nesting
- Adaptation and development of visualization/mapping system (based on GrADS).
- Development of verification system.
- Studies of forecast products application at LHMS.
- Promotion of NWP education at Vilnius University, Faculty of Natural Sciences.

If LHMS – FMI agreement succeeds...

- Setup of access to FMI HIRLAM boundary fields and observations.
- Modeling environment tests and setup for the pre-operational usage.
- Forecast products verification and recommendations for the usage.



**Thank you
for your attention !**