MAMA

Annual meeting, Athens, 1-2, 5 December 2002

Workpackage-4: MAMA-Model:

- *Definition of coastal/shelf modelling areas*
- *New model implementations*
- *Web server data distribution*
- *Exchange visit program*

Definition of coastal/shelf modelling areas

INSTM: Model domain for the Sicily Strait re-defined with increased Resolution.

ISDGM and FSR: Model for the Nador Lagon Implemented. _Shelf model area still to be defined_

NCMS: Lebanese coastal area

LEM: ????????

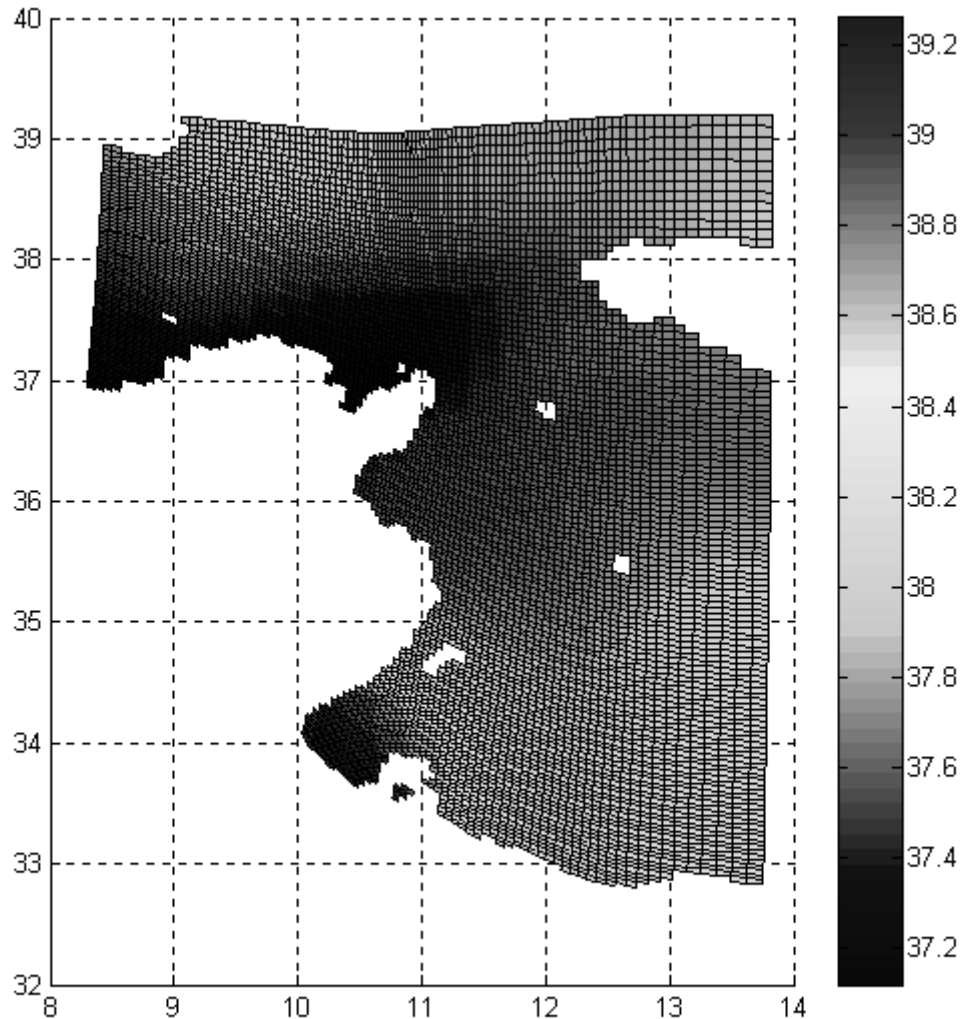# REPORT ON MODEL NESTING TECHNIQUE AVAILABLE ON THE WEB:

www.ambra.unibo.it/rasponi /sincem/mfsppwp6/nesting.html

Link also from the MAMA-WP4 web page on the MAMA Web server

New Model implementations

INSTM:

Sicily Strait:
Increased resolution
in the Tunisian
Coastal areas.

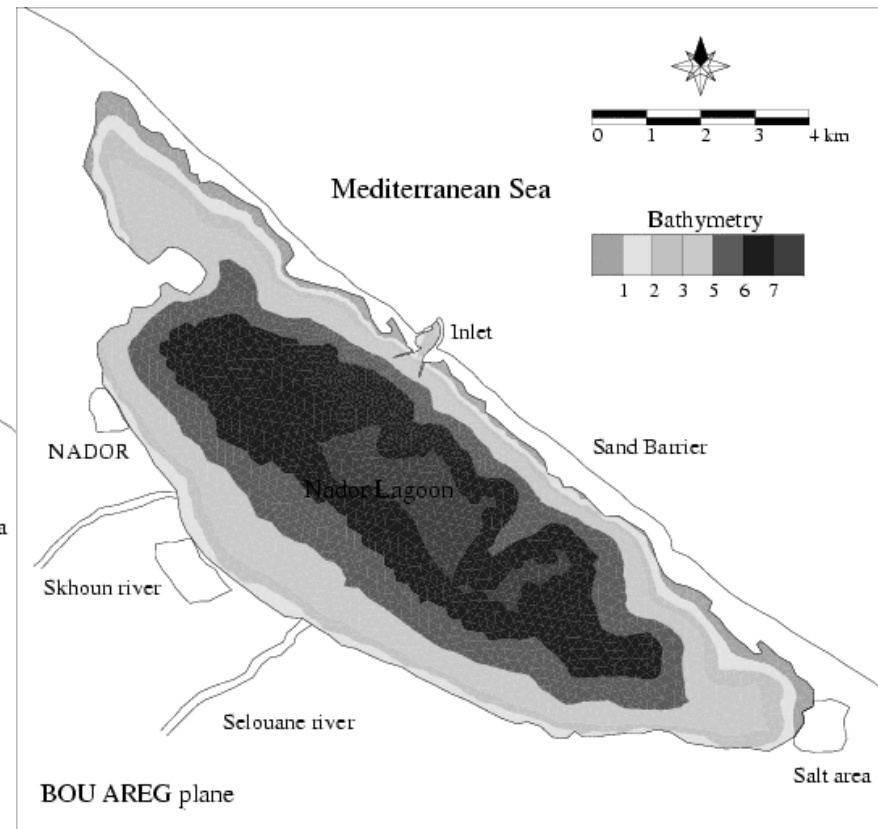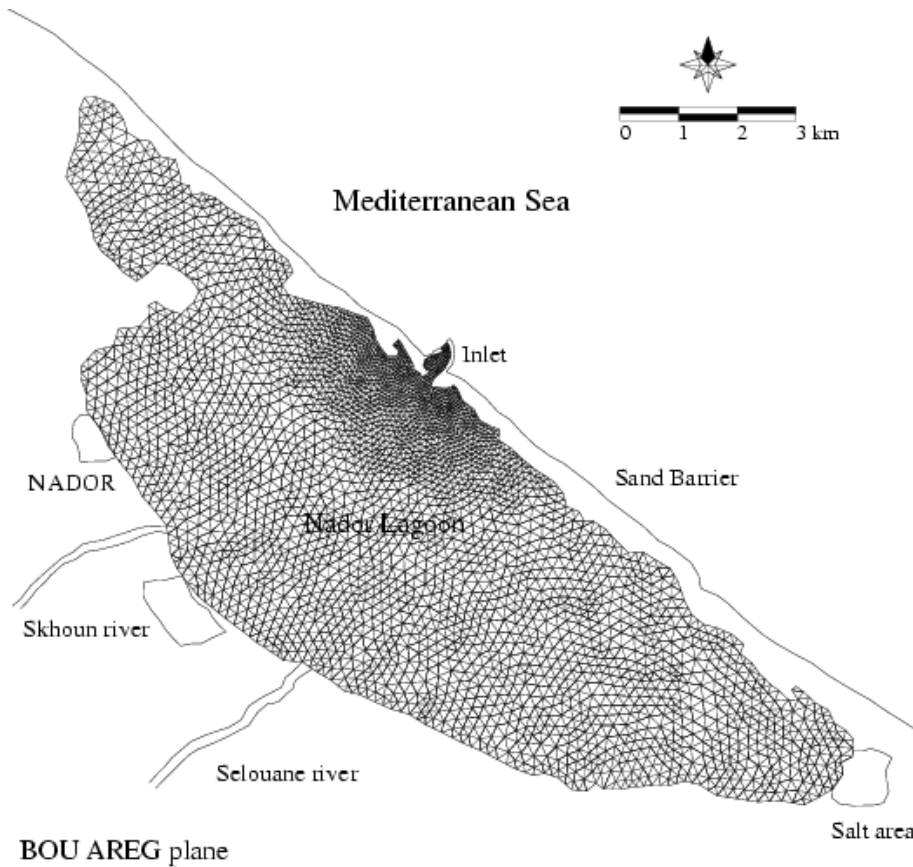# New Model implementations ISDGM and FSR

NADOR LAGOON

- Surface 11.5 km^2
- Shallow water (max depth 8m)
- Single passage with the open sea
- Aquaculture activity
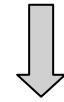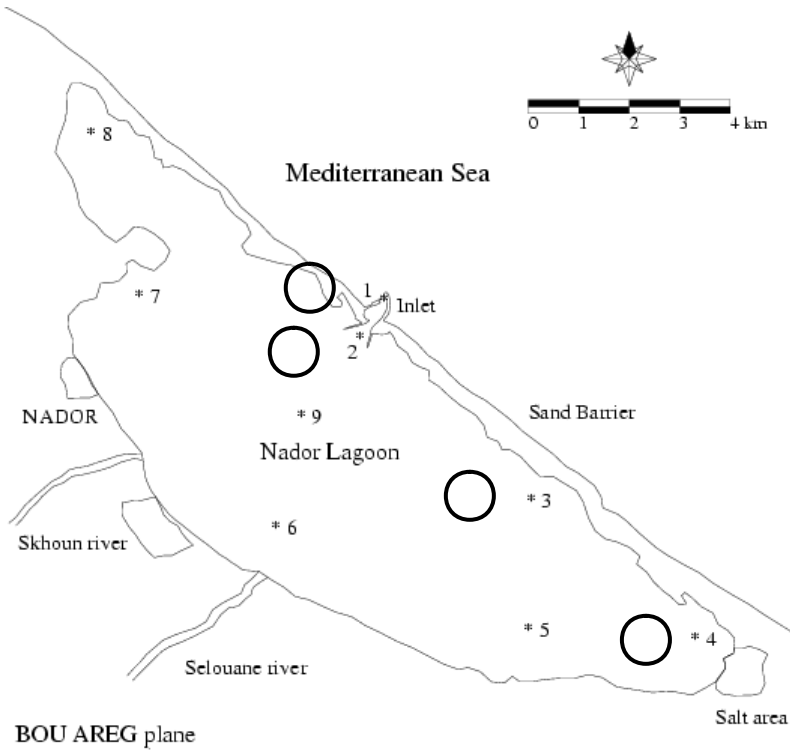- Wastewater and seawage discharge

Nador lagoon: grid and bathymetry
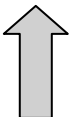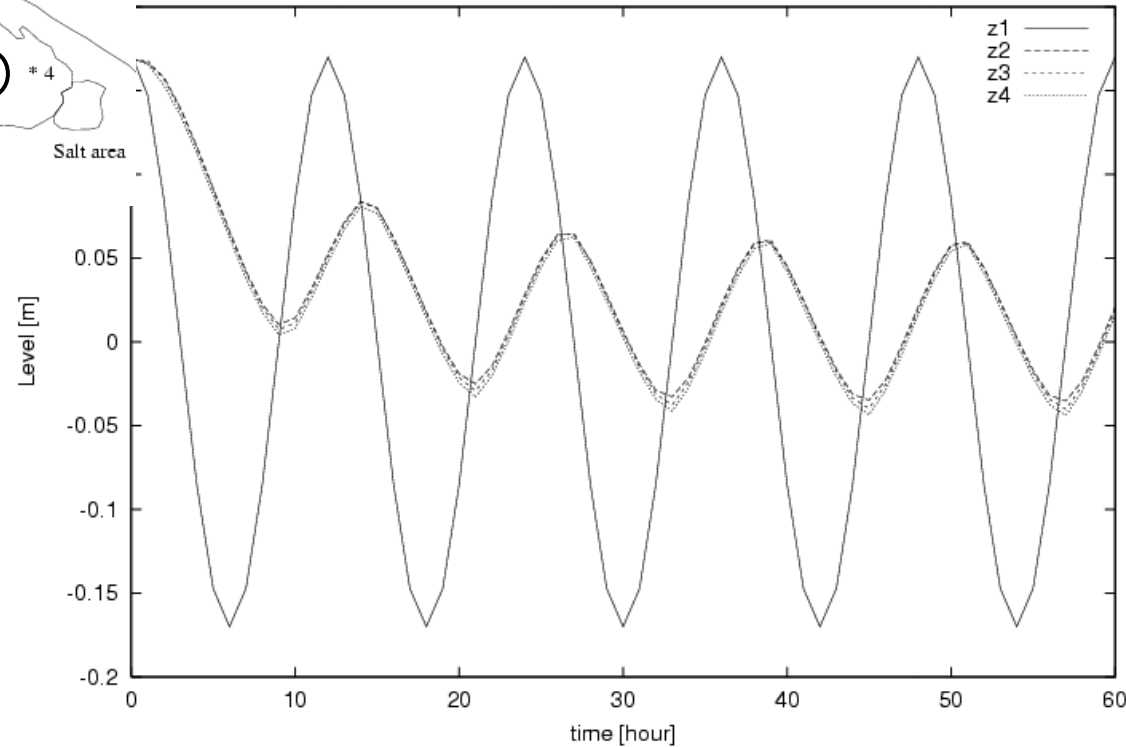
Tool: finite element model (SHYFEM)

Tidal oscillation

Results of the FEM model

Map of the points where water levels are computed by the FEM model

Wind driven circulation

First results of the FEM model with prevailing ENE wind of 5 m/s
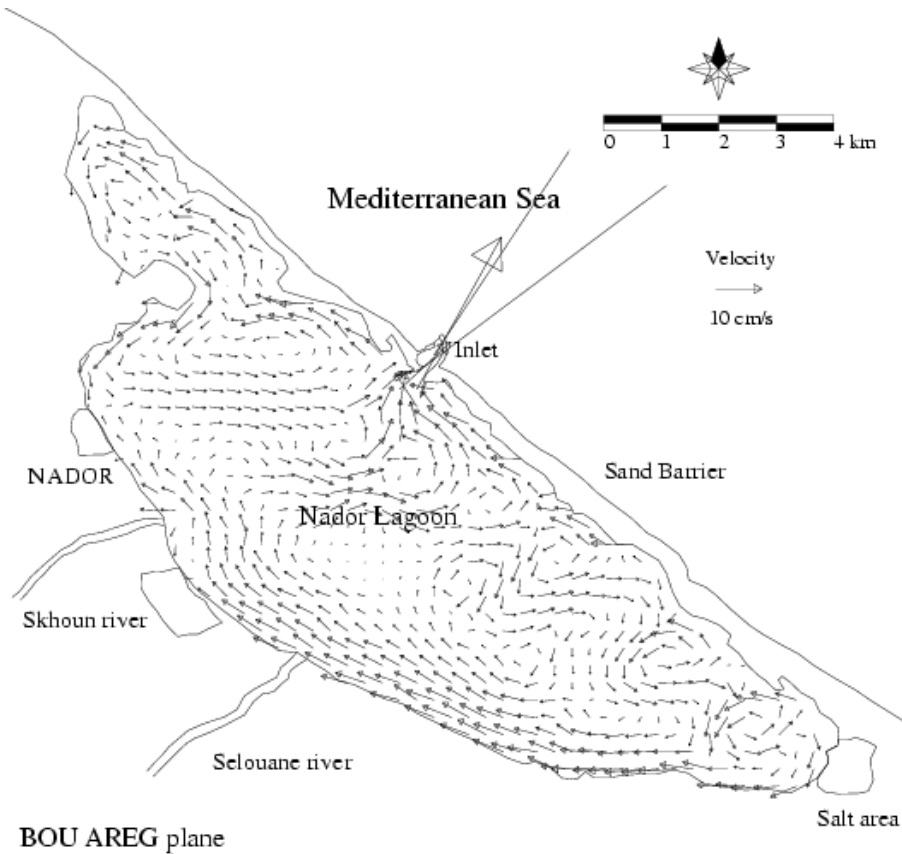
Circulation pattern proposed by O. Guelorget et al., 1987
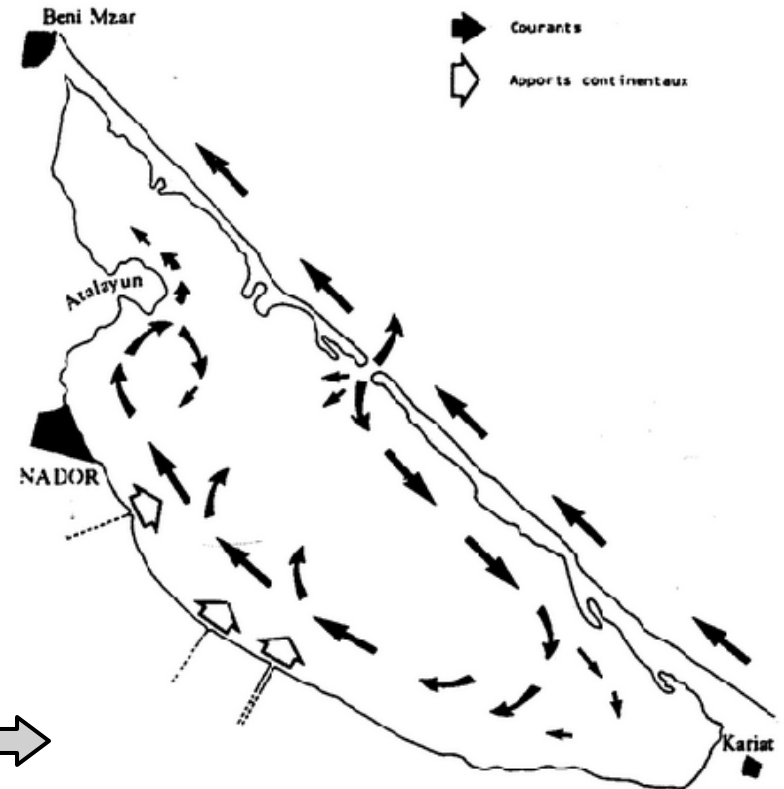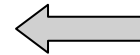
Future work
(NADOR LAGOON)

- Search for more data to calibrate and validate the numerical models
- Application of the transport-diffusion module for salinity and temperature
- Possible application of a water quality model to assess environmental problems
- Coupling with coastal shelf model

Web server data distribution

All participants registered, but not all of them accessed the data
To access:

Login on the BSCW server (with you username and password)

Go on folder: MAMA WP4 MAMA MODEL

5 Folders inside (Each folder contains a README.doc document

Bathymetry
Forcing
Grid
Inits
Obdata

MAMA-WP4 MODEL web server

Folder: Bathymetry

Contains:

Mediterranean Bathymetry file at 1/60° horizontal resolution. "Little endian" version of the file (for PC reading) has been added

Reading Instructions (FORTRAN77) and interpolation code.

MAMA-WP4 MODEL web server

Folder: Forcing

Contains:
Monthly averages of Mediterranean heat fluxes at 1° resolution
From ECMWF-ERA data

Monthly averages of Mediterranean wind stress at 1° resolution
from ECMWF-ERA data

Monthly averages of Mediterranean precipitation at 0.5°
resolution from Legates and Wilmott (1990) data

Reading Instructions (FORTRAN77) and interpolation codes
for each of the above files.

MAMA-WP4 MODEL web server

Folder: Grid

Contains:
FORTRAN77 Code for grid generation (Constant resolution)
(Provided by R. Sorgente)

MAMA-WP4 MODEL web server

Folder: Inits

Contains:

Fortran 77 code for the horizontal interpolation of T and S data
On the model grid

Fortran77 code for the vertical interpolation of T and S data
On the model sigma-coordinate system.

N.B.: The MED6 monthly Mediterranean Sea gridded (1°)
T and S (from MEDATLAS data set) fields can be downloaded
From: www.cineca.it /mfspp/wp5

MAMA-WP4 MODEL web server

Folder: Obdata

Contains:

Fortran 77 code for the interpolation of T, S, u, v data
From the MFSPP Mediterranean model (10 days averages)
on the MAMA's model grid open boundary(ies)

N.B. : The MFSPP Mediterranean model results (climatological
Forcing_ can be downloaded at:

www.cineca.it/mfspp/wp5

EXCHANGE VISIT PROGRAM (WP4)

UNIBO-CIRSA: Visits can start from APRIL 2003 Onwards

IMC: Visit can start from March 2003

EXCHANGE VISIT PROGRAM (WP3)

V. Garnier (IFREMER) will visit UNIBO-CIRSA
In February

J. Sole (CSIC): Arrangements are being taken