

MaRINET2 Virtual Access

<http://www.marinet2.eu/virtual-access/>



Virtual Access

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3 Available Services

- HOMERE Wave Hindcast Database (Ifremer)
- WindBench verification and validation platform (CENER)
- Skipheia Met Station (NTNU)



What is Virtual Access?

Virtual Access ensures free of charge access to e-infrastructure, namely to:

- Sophisticated computer services;
- Powerful computers, networks, grids, repositories, databanks;
- Safely storing large quantities of scientific data;
- Participation in virtual research communities;
- World-class operational communication and computing infrastructure to facilitate scientific research.

MaRINET2 Virtual Access services mainly consist in environmental measurement or hindcast databases and model validation services

Who is eligible for access to MaRINET2 VA Services?

Virtual Access is fully open and free access, available to all users from EU and non EU countries

How to apply?

- There is no selection procedure for access to the virtual services
- Applications will be assessed by the Manager of the service to which access is requested to assess whether this service matches the applicant's requirements
- Applications are welcome over the whole duration of the Marinet2 project until March 30th 2021

How to apply?

Three steps procedure:

- Identify the relevant service on the Marinet2 project web site (www.marinet2.eu)
- Contact the service manager for details on the service actually offered under the Marinet2 Virtual Access programme
- Complete the application form and send it back to the MaRINET2 Virtual Access Coordinator (Christophe Maisondieu - marinet2_tna@ifremer.fr).

MaRINET Virtual Access application form

Please fill in and send to the MaRINET2 Virtual Access Coordinator
(Christophe Maisondieu - marinet2_tna@ifremer.fr).

Applicant Details

(If more than one user, please indicate details of each members of the User Group)

Name:

Affiliation:

Position:

Country of Work:

Hosting Service Details

(see reference on the MaRINET2 website www.marinet2.eu)

Requested Virtual Access Service:

Requested elements:

(Please detail the elements of the service you are requesting (parameters, dates, options,...)

Dates and duration (Please indicate the required date of start and duration for the period of access to the Service):

Start Date:

Duration:

Objectives of use of the Virtual Access service:

(Please indicate the main scientific objectives of use of the Virtual Access Service provided by MaRINET2)

http://www.marinet2.eu/marinet2_va_form/



Requirements

No specific reporting on use of data or services is requested

It is required from users benefitting from access to a MaRINET2 Virtual Access service that they acknowledge access to this service in any publication or document presenting results obtained using this service.

“The research leading to these results has received funding from the European Union Horizon 2020 Framework Programme (H2020) under grant agreement no 731084”

3 Available Services

- HOMERE Wave Hindcast Database (Ifremer)
- WindBench verification and validation platform (CENER)
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HOMERE Wave Hindcast Database

Ifremer

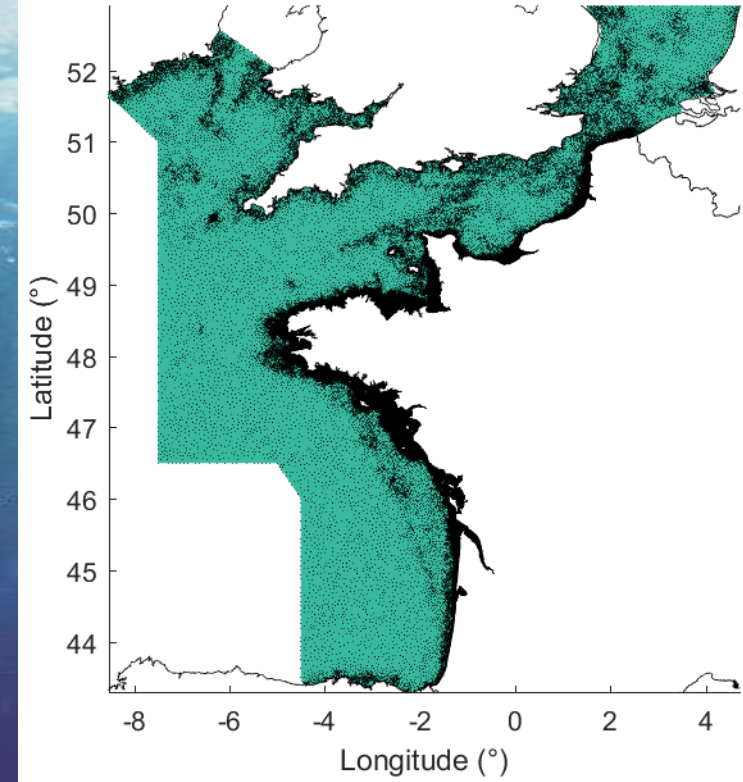
HOMERE was built running the wave model WaveWatch III[®] in a configuration based on an up-to-date parameterization for wave generation and dissipation terms also taking a realistic sea-bed roughness mapping into account.

Forcing Fields :

- Wind : CFSR reanalysis produced at NCEP in 2010.
- Water levels and tidal currents : recomposed from an atlas of harmonic components built from a dataset computed using the MARS 2D (Model for Applications at Regional Scale) hydrodynamic model.

Computational Grid : unstructured high resolution grid (over 100000 nodes) evolves from about 10 km offshore down to 200 m near-shore. The domain of the model extends from the South of the North Sea to the North of Spain covering the whole continental shelf in the Bay of Biscay.

Duration of the simulation: 23 years, [1994-2016] - one hour time step.



HOMERE Wave Hindcast Database



HOMERE output datasets:

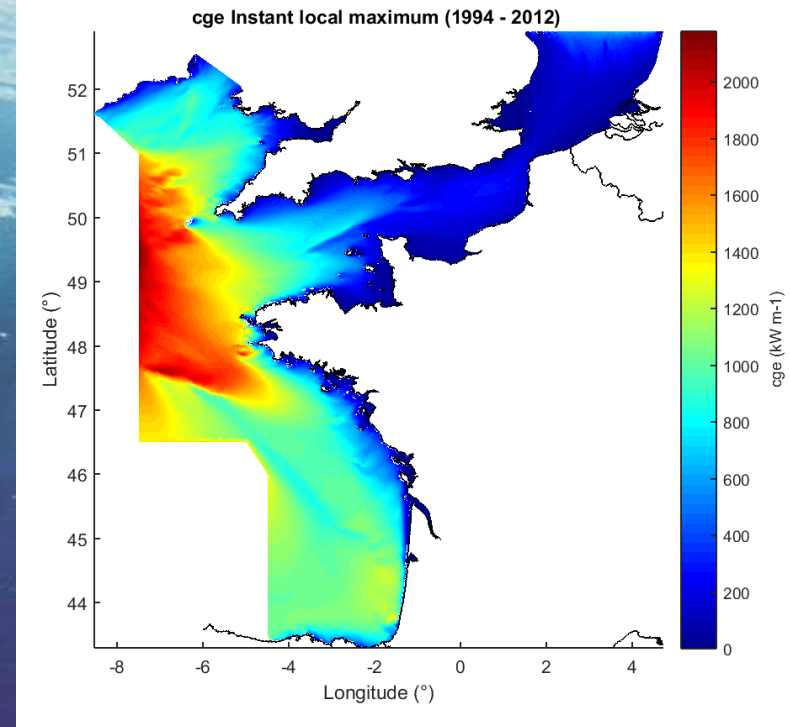
At each node of the computational grid (>100000 nodes):

- Global parameters (H_s , T_p , T_e , C_gE ,...)
- Sea-states partitions (wind-sea, swell) global parameters
- Frequency spectra (1D)

On a 4096 nodes coarser grid :

- Directional spectra (2D)

Validated against in-situ measurement, Altimeters, other reference hindcast datasets



Boudiere Edwige, Maisondieu Christophe, Arduin Fabrice, Accensi Mickael, Pineau-Guillou Lucia, Lepesqueur Jeremy (2013). **A suitable metocean hindcast database for the design of Marine energy converters**. *International Journal of Marine Energy*, 3-4, e40-e52. Publisher's official version : <http://doi.org/10.1016/j.ijome.2013.11.010>, Open Access version : <http://archimer.ifremer.fr/doc/00164/27524/>

