OpenIFS publications

This page contains a list of known publications that make use of OpenIFS models.

Peer-reviewed publications using OpenIFS models

2019


T. Matsunobu and M. Matsueda, 2019, Assessing the predictability of heavy rainfall events in Japan in early July 2018 on medium-range timescales, SOLA, https://doi.org/10.2151/sola.15A-004


2018


2017


2014


ECMWF Newsletter articles

On this page...

- Peer-reviewed publications using OpenIFS models
- ECMWF Newsletter articles
- Conference proceedings /abstracts

If you know or have any publications or conference papers regarding OpenIFS not on this list, please contact: openifs-support@ecmwf.int.

How to cite OpenIFS

We recommend citing the relevant IFS CY40R1 manuals:

@article{IFSDOC_IV+2014,
  author={ECMWF},
  year={2014},
  title={IFS documentation. Part III: Dynamics and Numerical Procedures},
  volume={CY40R1},
  url={https://www.ecmwf.int/sites/default/files/elibrary/2014/9204-part-ii-dynamics-and-numerical-procedures.pdf},
  publisher={ECMWF}
}

@article{IFSDOC_IV+2014,
  author={ECMWF},
  year={2014},
  title={IFS documentation. Part IV: Physical processes},
  volume={CY40R1},
  url={https://www.ecmwf.int/sites/default/files/elibrary/2014/9204-part-iv-physical-processes.pdf},
  publisher={ECMWF}
}

A number of journal papers may also be useful for specific parts of the IFS.
Conference proceedings/abstracts

2019

NEXTGenIO Workshop, ECMWF

Xavier Yepes Arbós (Barcelona Supercomputing Center), Improving the I/O scalability for the next generation of Earth system models: OpenIFS-Cassandra integration as a case study

European Geophysical Union (EGU), Vienna


2018

European Geophysical Union (EGU), Vienna


European Meteorological Society (EMS), Budapest


2017

European Geophysical Union (EGU), Vienna


European Meteorological Society (EMS), Dublin

% Meteorological evaluation of IFS CY40R1 (applies to OpenIFS 40r1)
@article[Haiden+2014,
title={Evaluation of ECMWF forecasts, including 2013-2014 upgrades},
journal={ECMWF Technical Memorandum},
number={742},
year={2014},
publisher={ECMWF}
}

% Relevant papers describing the dynamical core
@article[Untch+2004,
author = {Untch, A. and Hortal, M.},
title = {A finite-element scheme for the vertical discretization of the semi-Lagrangian version of the ECMWF forecast model},
journal = qj,
year = {2004},
volume = {130},
pages = {1505-1530}
]
@article[Temperton+2001,
author = {Temperton, C. and Hortal, M. and Simmons, A.},
title = {A two-time-level semi-Lagrangian global spectral model},
journal = qj,
year = {2001},
volume = {127},
pages = {111-127}
]
@article[Simmons+1989,
title = {The ECMWF medium-range prediction models: development of the numerical formulations and the impact of increased resolution},
journal = {Meteorol. Atmos. Phys.},
year = {1989},
volume = {40},
pages = {28-60}
]

**2016**

**European Meteorological Society (EMS), Trieste**


**2015**

**European Geophysical Union (EGU), Vienna**


**European Meteorological Society (EMS), Sofia**

Oleg Stepanyuk and Jouni Räisänen, *Factors affecting atmospheric vertical motions as analyzed with a generalized omega equation and Open IFS model*, EMS Annual Meeting Abstracts Vol. 12, EMS2015-486-1, 2015


**2014**

**World Weather Open Science conference, Montreal**


**European Geophysical Union (EGU), Vienna**


**2013**

**23rd ALADIN/HIRLAM workshop 2013**

Vana F. et al., 2013, *The ECMWF OpenIFS model*

**European Geophysical Union (EGU) 2013**

Carver, G.D. et al., 2013, *The ECMWF OpenIFS model* (solicited presentation)

**European Meteorological Society (EMS) 2013**