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Dataset Open

# COVID-CO2-ferries

Mannarini, Gianandrea<sup>1</sup> ; Salinas, Mario<sup>1</sup> ; Carelli, Lorenzo<sup>1</sup> ; Fassò, Alessandro<sup>2</sup>


The COVID\_CO2\_ferries dataset stems from variables of the [THETIS-MRV](#) and [IHS Markit](#) datasets. They are described in the manuscript referenced below in "Additional Resources".

Meaning of the variables in the COVID\_CO2\_ferries dataset:

number	name	meaning	units
1	IMOn	IMO number (Vessel unique identifier)	-
2	Eber	Per-ship CO2 emissions at berth	ton
3	Etot	Per-ship total CO2 emissions	ton
4	Dom	Sea Basin (NOR, BAL, MED)	-
5	COVID	COVID dummy variable (true in 2020)	-
6	year	year of CO2 emissions	-
7	Pme	Total power of main engines	0/1
8	LOA	Length over all	0/1
9	nPax	Passenger carrying capacity	0/1
10	yearB	year of building	0/1
11	nCalls	Per-ship number of port calls	-
12	VType	Vessel type (see defining Eq. below)	-

The variables with binary values (0/1 in the "units" column) refer to below (0) or above (1) the thresholds defined by:

$k$	$\varphi_k$	$\varphi_{k0}$	units
0	Pme	21,600 kW	
1	nPax	1,250	-
2	LOA	174	m
3	yearB	1999	-

The VType variable is defined by:

$$\text{VType} = \sum_{k=0}^3 2^k \cdot H(\varphi_k - \varphi_{k0})$$

## Additional Resources

- The "*How COVID-19 affected GHG emissions of ferries in Europe*" manuscript by Mannarini et al. (2022) using this dataset is published on *Sustainability* 2022, 14(9), 5287; <https://doi.org/10.3390/su14095287>. You may want to cite it.
- A jupyter notebook using this dataset is available at <https://github.com/hybrs/COVID-CO2-ferries>

## Notes

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## Files

COVID-CO2-ferries.csv

IMOn	Eber	Etot	Dom	COVID	year	Pme	LOA	nPax	yearB	nCalls	V
6511128	761.75	6941.34	MED	no	2018	0	0	0	0	262	_
6511128	635.09	4909.3	MED	no	2019	0	0	0	0	180	_
7037806	2127.72	16751.35	NOR	no	2018	0	0	1	0	1345	_
7037806	1335.9	11118.41	NOR	no	2019	0	0	1	0	793	_
7037806	1234.6	4947.88	MED	yes	2020	0	0	1	0	113	_
7128332	669.0	12912.35	BAL	no	2018	0	0	0	0	1081	_
7128332	2053.17	13046.64	BAL	no	2019	0	0	0	0	1093	_
7128332	1836.65	13137.92	BAL	yes	2020	0	0	0	0	1039	_

Files (50.6 kB)

COVID-CO2-ferries.csv

md5:459808a5b157fcada9f898106c5124d ⓘ

50.6 kB

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Apr 21, 2022

10.5281/zenodo.6473158

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