REVISION OF ESSD-2022-344

The article entitled "A Mediterranean drifters dataset: 1998–2022" contains a series of files with trajectories of different kinds of drifters deployed between 1998 and 2021. Lagrangian drifters are a very useful tool for understanding the surface circulation of the ocean, as well as for determining mesoscale and submesoscale structures that are related to areas of accumulation of larvae or plastics, among others. However, in this work, the dataset needs to be revised in order to be used by other users in the scientific community. On one hand, title of the paper does not seem appropriate, since, as indicated in the manuscript, the first buoy deployment experiments were carried out in the years 1998-1999 but were not repeated until 10 years later, so this title is misleading. And on the other hand, some files (e.g. hrib_LCE230) are not related to Mediterranean tracks (they show latitudes of 68 – 70 ºN). The work needs a great deal of effort to improve its quality in order to be published.

ABSTRACT

Here, and along the manuscript, you say that the dataset belongs to 138 experiments but there are 204 tracks, could you explain why? trajectories of which drifters were divided?

INTRODUCTION

Are there previous Lagrangian experiments in the study area? Why is this dataset important?

THE DRIFTERS

Table 1 and Figure 1

As above mentioned, some files are not from the Mediterranean Sea. Please remove them from this dataset and article, or include them but change the study area and so on. Some of these drifters are: hrib_LCE230; mrib_LCE227; mrib_LCE229; prib_ LCE229; qrib_ LCE229; urib_ LCE229; vrib_ LCE229; (…).

In my opinion, in order to be able to draw conclusions about the Lagrangian motion, it is necessary to have several points of the buoy's motion, which allow for concluding how the circulation in an area is. In this work, many trajectories are presented with little data (less than 10), so I do not consider that they give information. I attach a table with all the available buoys and the number of data.

Drifter name	number of data	Drifter name	number of data	Drifter name	number of data	Drifter name	number of data	Drifter name	number of data	Drifter name	number of data
aarib_LCA113	2	arib_LCA122	33	brib_CODE94657	4	crib_LCE234	879	jrib_LCA127	2	vrib_LCE229	32
aarib_LCA197	3	arib_LCA123	126	brib_CODE94658	62	crib_LCE236	2799	jrib_LCE227	29	wrib_LCA116	2
abrib_LCA197	4	arib_LCA124	3	brib_LCA075	4	crib_LCE348	402	jrib_LCE229	38	wrib_LCE229	28
acrib_LCA113	2	arib_LCA125	26	brib_LCA076	7	crib_LCH353	363	krib_CLD	2	xrib_LCE229	9
aerib_LCA197	10	arib_LCA126	94	brib_LCA077	24	drib_CLD	4	krib_LCA112	6	yrib_LCA116	2
afrib_LCA197	2	arib_LCA127	2	brib_LCA113	6	drib_CODE94658	7	krib_LCA113	2	yrib_LCE229	41
agrib_LCA197	3	arib_LCA128	3	brib_LCA116	7	drib_LCA076	5	krib_LCE227	14	zrib_LCA113	2
ahrib_LCA197	3	arib_LCA132	82	brib_LCA120	96	drib_LCA127	31	krib_LCE229	3	zrib_LCA197	4
airib_LCA116	2	arib_LCE227	1231	brib_LCA121	109	drib_CLD	5	lrib_CLD	5	zrib_LCE229	4
airib_LCA197	10	arib_LCE228	30	brib_LCA122	8	drib_LCE229	4	lrib_LCA113	3		
akrib_LCA116	2	arib_LCE229	587	brib_LCA124	18	drib_LCE230	18	lrib_LCE227	6		
akrib_LCA128	21	arib_LCE230	482	brib_LCA125	22	drib_LCE234	71	lrib_LCE229	98		
alrib_LCA113	7	arib_LCE231	236	brib_LCA128	5	drib_LCE236	147	mrib_CLD	5		
alrib_LCA128	36	arib_LCE232	271	brib_LCE227	22	drib_LCE348	51	mrib_LCA112	31		
amrib_LCA113	21	arib_LCE233	96	brib_LCE229	17	erib_LCE227	22	mrib_LCE227	1010		
amrib_LCA128	25	arib_LCE234	239	brib_LCE230	29	erib_LCE229	4	mrib_LCE229	47		
aorib_LCA113	3	arib_LCE235	64	brib_LCE231	607	erib_LCE230	12	nrib_CLD	5		
aprib_LCA113	27	arib_LCE236	9	brib_LCE232	300	erib_LCE236	31	nrib_LCA113	3		
arib_CLD	2	arib_LCE255	879	brib_LCE233	72	frib_LCA127	2	orib_CLD	5		
arib_CODE5748	140	arib_LCE256	547	brib_LCE234	197	frib_LCA197	4	orib_LCA127	3		
arib_CODE94656	2	arib_LCE347	3950	brib_LCE236	389	frib_LCE227	7	orib_LCE229	4		
arib_CODE94657	26	arib_LCE348	175	brib_LCE256	715	frib_LCE229	14	prib_LCA113	2		
arib_CODE94658	149	arib_LCE349	100	brib_LCE348	19	frib_LCE230	67	prib_LCA116	2		
arib_LCA075	67	arib_LCE351	29	brib_LCE349	45	frib_LCE236	495	prib_LCA127	3		
arib_LCA077	19	arib_LCE354	7	brib_LCE354	32	grib_LCE227	77	prib_LCE229	53		
arib_LCA078	89	arib_LCE570	42	brib_LCE570	196	grib_LCE229	43	qrib_LCE229	88		
arib_LCA079	67	arib_LCE573	251	brib_LCE573	298	grib_LCE230	56	rrib_LCA113	2		
arib_LCA109	101	arib_LCE601	499	brib_LCE579	5	hrib_CLD	4	rrib_LCA127	3		
arib_LCA110	110	arib_LCF425	438	brib_LCE601	74	hrib_LCE227	16	rrib_LCE229	12		
arib_LCA111	119	arib_LCH352	900	brib_LCF425	84	hrib_LCE229	154	srib_LCA124	4		
arib_LCA112	4	arib_ODi150	575	brib_LCH353	6	hrib_LCE230	285	srib_LCA127	118		
arib_LCA113	3	arib_ODi730	26	brib_ODi730	18	irib_CLD	6	srib_LCA197	3		
arib_LCA114	33	aurib_LCA116	19	crib_CODE94658	393	irib_LCA127	2	srib_LCE229	14		
arib_LCA115	82	avrib_LCA116	45	crib_LCA075	7	irib_LCE227	10	trib_LCA124	122		
arib_LCA116	3	awrib_LCA116	53	crib_LCA076	5	irib_LCE229	49	trib_LCA128	2		
arib_LCA118	29	axrib_LCA116	33	crib_LCE227	22	jrib_CLD	5	trib_LCA197	3		
arib_LCA119	118	azrib_LCA116	4	crib_LCE229	25	jrib_LCA112	2	urib_LCA116	2		
arib_LCA120	21	brib_CLD	2	crib_LCE230	8	jrib_LCA113	3	urib_LCE229	32		
arib_LCA121	71	brib_CODE94656	7	crib_LCE233	28	jrib_LCA124	2	vrib_LCA197	2		

Therefore, I recommend removing the files with a such small number of locations.

Table 1 shows information about hybrid and temperature (LCH and LCF, respectively). Nevertheless, whe I downloaded the dataset I did not find information related to this kind of drifters. Besides this, please, remove temperature information in the NetCDF information (SST) because there is no data about that (as well as along the manuscript).

Following the data, you do not specify the units of zonal and meridional velocity in the files. I think you should explain how you calculate.

Tracks 2009-100 2010: the CODE

Line 102. Measurements of CODE 110 cm x 15 cm? These values are confusing attending to Figure 2B.

Line 115: Could you check it with your data? And not only with this kind of a drifter.

Tracks 2015-2022: coastal and offshore Nomad drifters

Line 156. Same here, in the dataset, there are no LCH and LCF files.

Line 157. Were the Southtek drifters drogue? Why is not shown in Figure 2?

Line 207. I do not understand: "A dedicated custom MATLAB tool…" What is this?

Line 213. "From the original 138…" Again, why? Which tracks?

Figure 4. Kind repetitive… you explain this in Table 1. There is a mistake in "th".

Line 225. Which figure?