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Atmospheric Chemistry and Physics Open Access

Supplement of

Review of interactive open-access publishing with community-based open peer review for improved scientific discourse and quality assurance

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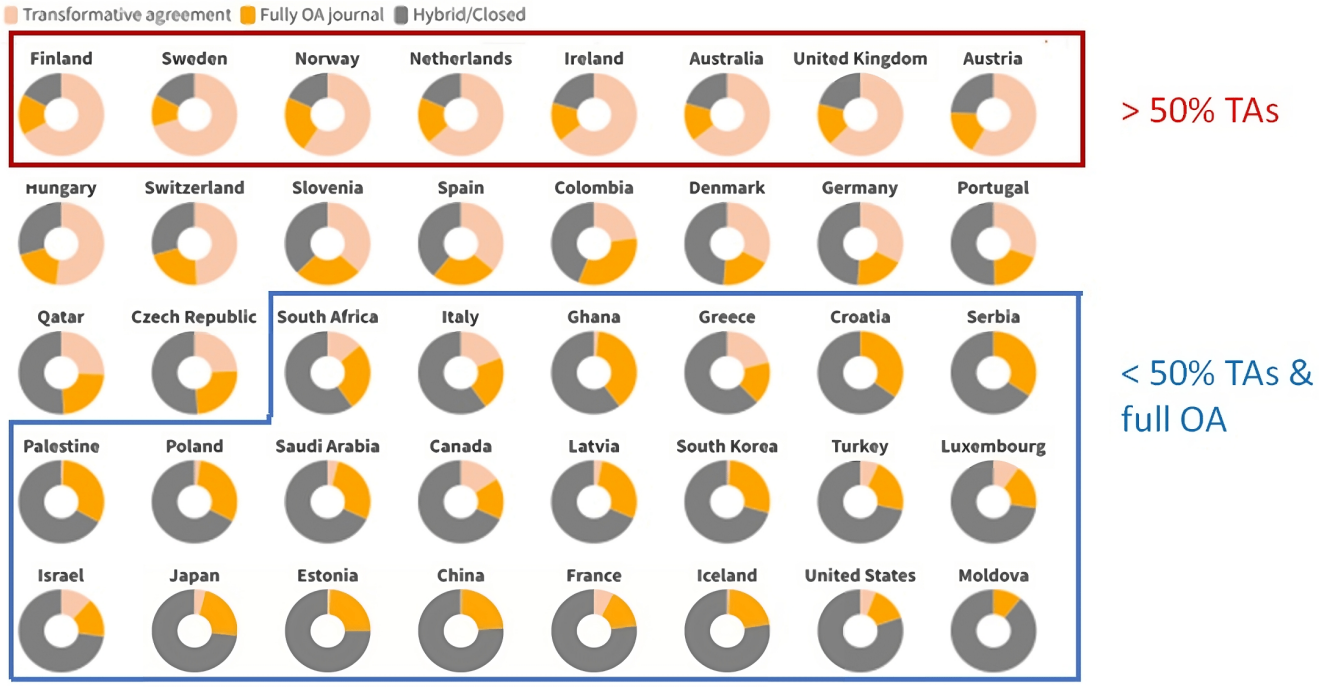

Figure S1. Article output per country by publication model (Dér, 2023)

Table S1. Manuscript types in the EGU journals.The journal acronyms in the first column are linked to the journal web pages with the definitions of the manuscript types.

Journal	Research papers	Review articles (Section 4.1.2)	Letters (Section 4.3.3)	Journal-specific manuscript types	Peer-reviewed comments
ANGEO	Regular papers	Review papers		ANGEO Communicates	Peer-reviewed comments
ACP	Research articles	Review article	ACP Letters	Measurement Reports, Opinions, Technical Notes, SI Overview articles	Commentaries
AMT	Research articles	Review articles			Peer-reviewed comments
BG	Research articles	Reviews and syntheses	BG Letters	Ideas and perspectives, Technical notes, SI Overview articles	Peer-reviewed comments and replies
CP	Research articles	Review articles		Rapid communications, Opinions, Technical notes	Commentaries
ESurf	Research articles	Review articles	ESurf Letters	Short communication	Comments
ESD	Research articles	Reviews	ESD Letters	ESD ideas, Perspectives, Overview article, Editorials	Peer-reviewed comments
GChron	Research articles	Review articles		Short communication/technical notes	Comments
GC	Research articles	Review articles	GC Letters	GC insights, Introduction/Overview articles	
GI	Research articles	Review articles			Peer-reviewed comments
GMD		Reviews and perspective papers		Model description papers, Development and technical papers, methods for assessment of models, model evaluation papers	
HESS	Research articles	Review articles		Opinion articles, Technical notes, Education and communication	Comments
NHESS	Research articles	Review articles		Brief communications, Invited perspectives, Book reviews	
NPG	Research articles	Review articles	NPG Letters	Brief communications, Book reviews	Comments & Replies
OS	Research articles	Review articles	OS Letters	Technical Notes	Peer-reviewed comments and replies
SE	Research articles	Review articles		Short communications, Method articles	Peer-reviewed comments
SOIL	Original research articles	Review articles	SOIL Letters	Short communications, Letters to the editors, Forum articles	Comments
TC	Research articles	Review articles		Brief communications, Invited perspective articles, Special Issue editorial, Book reviews	Comments
WCD	Research articles	Review articles		Meeting summaries, WCD ideas	Peer-reviewed comments

Table S2. Number of total author, referee, editor and community comments in EGU journals.

	Total comments	Proportion of comments by				Referee comments (Nov 2022 - 2023)	
	since 2001	Authors	Referees	Editors	Community	eponymous	anonymous
All EGU journals	261,469	47%	46%	2%	5%	19%	81%
ACP	70,454	46%	49%	1%	4%	10%	90%
AMT	24,740	49%	47%	1%	3%	13%	87%
ANGEO	2,672	53%	42%	1%	4%	20%	80%
BG	32,326	48%	48%	1%	4%	18%	82%
CP	12,356	45%	43%	6%	6%	30%	70%
ESD	5,019	48%	43%	2%	7%	19%	81%
ESurf	3,333	43%	47%	6%	5%	37%	63%
GChron	1,070	49%	42%	3%	5%	63%	37%
GC	964	51%	41%	2%	7%	63%	37%
GI	1,947	44%	48%	2%	5%	20%	80%
GMD	20,102	46%	43%	5%	7%	20%	80%
HESS	33,241	48%	44%	3%	5%	17%	83%
NHESS	14,592	49%	45%	1%	5%	21%	79%
NPG	2,446	47%	46%	3%	3%	25%	75%
OS	8,105	47%	45%	3%	5%	14%	86%
SE	2,712	50%	41%	3%	5%	45%	55%
SOIL	6,821	48%	43%	4%	5%	20%	80%
TC	17,000	47%	46%	2%	5%	29%	71%
WCD	1,567	41%	52%	4%	3%	63%	37%

Table S3. Most highly commented papers in EGU journals (as of December 2024); # denotes the total number of comments by referees, authors, the handling and/or executive editor, and community members in the linked discussions.

Journal	#	Link to interactive discussion	Reference to paper	Article type
ACP	110	https://acp.copernicus.org/articles/16/3761/2016/acp-16-3761-2016-discussion.html	Hansen et al. (2016)	Highlight
	33	https://acp.copernicus.org/articles/21/12909/2021/acp-21-12909-2021-discussion.html	Monks et al. (2021)	Opinion, Highlight
	33	https://acp.copernicus.org/preprints/acpd-2008-0250/	Makarieva et al. (2008)	Revised MS not accepted for publication
	27	https://acp.copernicus.org/articles/15/10263/2015/acp-15-10263-2015-discussion.html	Vali et al. (2015)	Technical Note
	27	https://acp.copernicus.org/articles/13/31/2013/acp-13-31-2013-discussion.html	Lelieveld et al. (2013)	Peer reviewed comment
	22	https://acp.copernicus.org/articles/14/317/2014/acp-14-317-2014-discussion.html	Baklanov et al. (2014)	Review article
	21	https://acp.copernicus.org/articles/12/2313/2012/acp-12-2313-2012-discussion.html	Stohl et al. (2012)	Research article
	20	https://acp.copernicus.org/articles/16/2285/2016/acp-16-2285-2016-discussion.html	Wang et al. (2016)	Research article
	20	https://acp.copernicus.org/articles/13/1039/2013/acp-13-1039-2013-discussion.html	Makarieva et al. (2013)	Research article
	20	https://acp.copernicus.org/articles/10/9059/2010/acp-10-9059-2010-discussion.html	Crowley et al. (2010)	Review article
AMT	18	https://amt.copernicus.org/articles/5/2095/2012/amt-5-2095-2012-discussion.html	Burns et al. (2012)	Research article
	18	https://amt.copernicus.org/articles/4/975/2011/amt-4-975-2011-discussion.html	Dubovik et al. (2011)	Research article
	17	https://amt.copernicus.org/articles/14/7199/2021/amt-14-7199-2021-discussion.html	Volz et al. (2021)	Research article
	17	https://amt.copernicus.org/articles/5/2081/2012/amt-5-2081-2012-discussion.html	Frankenberg et al. (2012)	Research article
	16	https://amt.copernicus.org/articles/16/727/2023/amt-16-727-2023-discussion.html	Forgan et al. (2023)	Research article
BG	18	https://bg.copernicus.org/articles/19/5707/2022/bg-19-5707-2022-discussion.html	Boonman et al. (2022)	Research article
	18	https://bg.copernicus.org/articles/19/1013/2022/bg-19-1013-2022-discussion.html	Björn (2022)	Peer reviewed comment
	18	https://bg.copernicus.org/articles/15/4955/2018/bg-15-4955-2018-discussion.html	Liu et al. (2018)	Research article
	16	https://bg.copernicus.org/articles/21/1/2024/bg-21-1-2024-discussion.html	Zhang et al. (2024)	Research article

	16	https://bg.copernicus.org/articles/14/3239/2017/bg-14-3239-2017-discussion.html	Axelsson and Hanan (2017)	Research article
CP	27	https://cp.copernicus.org/articles/20/2587/2024/cp-20-2587-2024-discussion.html	Kaufman and Masson-Delmotte (2024)	Opinion
	20	https://cp.copernicus.org/articles/14/593/2018/cp-14-593-2018-discussion.html	Kaufman and Special-issue editorial team (2018)	Technical Note, Highlight
	20	https://cp.copernicus.org/articles/7/603/2011/cp-7-603-2011-discussion.html	Huber and Caballero (2011)	Research article
	20	https://cp.copernicus.org/articles/3/591/2007/cp-3-591-2007-discussion.html	Juckes et al. (2007)	Research article
	17	https://cp.copernicus.org/articles/7/831/2011/cp-7-831-2011-discussion.html	Dickens (2011)	Research article
Esurf	19	https://esurf.copernicus.org/articles/9/1153/2021/esurf-9-1153-2021-discussion.html	Willett et al. (2021)	Research article
	17	https://esurf.copernicus.org/articles/8/123/2020/esurf-8-123-2020-discussion.html	Beeson and McCoy (2020)	Research article
	12	https://esurf.copernicus.org/articles/11/681/2023/esurf-11-681-2023-discussion.html	Hosseiny et al. (2023)	Research article
	12	https://esurf.copernicus.org/articles/8/1021/2020/esurf-8-1021-2020-discussion.html	Svennevig et al. (2020)	Research article, Highlight
	12	https://esurf.copernicus.org/articles/7/411/2019/esurf-7-411-2019-discussion.html	van Woerkom et al. (2019)	Research article
ESD	27	https://esd.copernicus.org/articles/9/1155/2018/esd-9-1155-2018-discussion.html	Sutton (2018)	ESD Ideas
	25	https://esd.copernicus.org/articles/4/51/2013/esd-4-51-2013-discussion.html	Torre and Selicato (2013)	Research article
	20	https://esd.copernicus.org/articles/7/597/2016/esd-7-597-2016-discussion.html	Rypdal and Rypdal (2016)	Peer reviewed comment
	20	https://esd.copernicus.org/articles/3/1/2012/esd-3-1-2012-discussion.html	Garrett (2012)	Research article
	19	https://esd.copernicus.org/articles/13/1145/2022/esd-13-1145-2022-discussion.html	López-Corona et al. (2022)	ESD ideas
GChron	14	https://gchron.copernicus.org/articles/3/433/2021/gchron-3-433-2021-discussion.html	Ketcham and Tamer (2021)	Research article
	13	https://gchron.copernicus.org/articles/4/373/2022/gchron-4-373-2022-discussion.html	Issler et al. (2022)	Research article
	11	https://gchron.copernicus.org/articles/6/409/2024/gchron-6-409-2024-discussion.html	Prince et al. (2024)	Research article
	11	https://gchron.copernicus.org/articles/6/107/2024/gchron-6-107-2024-discussion.html	Trayler et al. (2024)	Research article
	11	https://gchron.copernicus.org/articles/6/89/2024/gchron-6-89-2024-discussion.html	Donaghy et al. (2024)	Research article, Highlight

GC	15	https://gc.copernicus.org/articles/1/25/2018/gc-1-25-2018-discussion.html	Beggan and Marple (2018)	Research article, Highlight
	14	https://gc.copernicus.org/articles/4/1/2021/gc-4-1-2021-discussion.html	Negrete (2021)	Research article
	12	https://gc.copernicus.org/articles/4/147/2021/gc-4-147-2021-discussion.html	Archer et al. (2021)	Research article
	12	https://gc.copernicus.org/preprints/gc-2024-5/	Turton et al. (2024)	Research article
	10	https://gc.copernicus.org/articles/5/275/2022/gc-5-275-2022-discussion.html	Hall et al. (2022)	GC Insights, Highlight
GI	17	https://gi.copernicus.org/articles/7/235/2018/gi-7-235-2018-discussion.html	Lin et al. (2018)	Research article
	12	https://gi.copernicus.org/articles/10/183/2021/gi-10-183-2021-discussion.html	Bociarska et al. (2021)	Research article
	12	https://gi.copernicus.org/articles/6/193/2017/gi-6-193-2017-discussion.html	Singh and Singh (2017)	Research article
	10	https://gi.copernicus.org/articles/13/75/2024/gi-13-75-2024-discussion.html	Lu et al. (2024)	Research article
	10	https://gi.copernicus.org/articles/12/71/2023/gi-12-71-2023-discussion.html	Yamauchi and Brändström (2023)	Research article
GMD	27	https://gmd.copernicus.org/articles/17/7751/2024/gmd-17-7751-2024-discussion.html	Swatridge et al. (2024)	Model experiment description paper
	22	https://gmd.copernicus.org/articles/9/1937/2016/gmd-9-1937-2016-discussion.html	Eyring et al. (2016)	Model experiment description paper
	19	https://gmd.copernicus.org/articles/16/2277/2023/gmd-16-2277-2023-discussion.html	Gardner et al. (2023)	Model description paper
	18	https://gmd.copernicus.org/articles/7/1945/2014/gmd-7-1945-2014-discussion.html	Parkinson et al. (2014)	Development and technical paper
	16	https://gmd.copernicus.org/preprints/gmd-2024-58/	Oldford et al. (2024)	Model description paper
HESS	31	https://hess.copernicus.org/articles/26/5373/2022/hess-26-5373-2022-discussion.html	Sadri et al. (2022)	Research article
	26	https://hess.copernicus.org/articles/28/4187/2024/hess-28-4187-2024-discussion.html	Kratzert et al. (2024)	HESS Opinions
	24	https://hess.copernicus.org/articles/17/4389/2013/hess-17-4389-2013-discussion.html	Wetterhall et al. (2013)	HESS Opinions
	24	https://hess.copernicus.org/articles/11/1013/2007/hess-11-1013-2007-discussion.html	Makarieva and Gorshkov (2007)	Research article
	20	https://hess.copernicus.org/articles/22/3965/2018/hess-22-3965-2018-discussion.html	Sprenger et al. (2018)	Research article
	20	https://hess.copernicus.org/articles/22/581/2018/hess-22-581-2018-discussion.html	Tarigan et al. (2018)	Research article, Highlight
	20	https://hess.copernicus.org/articles/13/1299/2009/hess-13-1299-2009-discussion.html	Meesters et al. (2009)	Peer reviewed comment

	19	https://hess.copernicus.org/articles/21/879/2017/hess-21-879-2017-discussion.html	Roy et al. (2017)	Research article
	19	https://hess.copernicus.org/articles/19/4257/2015/hess-19-4257-2015-discussion.html	Fox et al. (2015)	Research article
	19	https://hess.copernicus.org/articles/13/491/2009/	Viglizzo et al. (2009)	no revised MS submitted
NHESS	22	https://nhess.copernicus.org/articles/21/363/2021/nhess-21-363-2021-discussion.html	Tylkowski et al. (2021)	Research article
	20	https://nhess.copernicus.org/articles/15/1873/2015/nhess-15-1873-2015-discussion.html	Scoville et al. (2015)	Research article
	19	https://nhess.copernicus.org/articles/22/2201/2022/nhess-22-2201-2022-discussion.html	Blauhut et al. (2022)	Research article, Highlight
	18	https://nhess.copernicus.org/articles/24/397/2024/nhess-24-397-2024-discussion.html	Inan et al. (2024)	Research article
	16	https://nhess.copernicus.org/preprints/nhess-2024-102/	Titos et al. (2024)	Research article
NPG	14	https://npg.copernicus.org/articles/22/53/2015/npg-22-53-2015-discussion.html	Adib et al. (2015)	Research article
	13	https://npg.copernicus.org/articles/25/497/2018/npg-25-497-2018-discussion.html	Matcharashvili et al. (2018)	Research article
	12	https://npg.copernicus.org/preprints/npg-2024-11/	Samuelsberg and Jakobsen (2024)	Research article
	12	https://npg.copernicus.org/preprints/npg-2024-9/	Guarnieri et al. (2024)	Research article
	10	https://npg.copernicus.org/articles/30/63/2023/npg-30-63-2023-discussion.html	Deser and Phillips (2023)	Research article, Highlight
OS	18	https://os.copernicus.org/articles/14/1085/2018/os-14-1085-2018-discussion.html	Tripathy et al. (2018)	Research article
	17	https://os.copernicus.org/articles/6/461/2010/os-6-461-2010-discussion.html	Miladinova and Stips (2010)	Research article
	15	https://os.copernicus.org/articles/16/997/2020/os-16-997-2020-discussion.html	Ezer and Dangendorf (2020)	Research article
	14	https://os.copernicus.org/articles/7/793/2011/os-7-793-2011-discussion.html	Kordzadze and Demetrashvili (2011)	Research article
	13	https://os.copernicus.org/articles/20/1457/2024/os-20-1457-2024-discussion.html	Hagemann et al. (2024)	Research article
SE	40	https://se.copernicus.org/preprints/se-2015-134/	Smythe (2016)	no revised MS submitted
	20	https://se.copernicus.org/articles/14/1169/2023/se-14-1169-2023-discussion.html	Cao et al. (2023)	Method article
	18	https://se.copernicus.org/articles/11/2047/2020/se-11-2047-2020-discussion.html	Sizov et al. (2020)	Research article
	18	https://se.copernicus.org/articles/9/669/2018/se-9-669-2018-discussion.html	Shamilishvily et al. (2018)	Research article

	15	https://se.copernicus.org/articles/15/617/2024/se-15-617-2024-discussion.html	Frasson et al. (2024)	Research article
SOIL	21	https://soil.copernicus.org/articles/8/655/2022/soil-8-655-2022-discussion.html	Aldaz-Lusarreta et al. (2022)	Research article
	19	https://soil.copernicus.org/articles/1/131/2015/soil-1-131-2015-discussion.html	Bochet (2015)	Review article, Highlight
	17	https://soil.copernicus.org/articles/10/887/2024/soil-10-887-2024-discussion.html	Namwanyi et al. (2024)	Research article
	17	https://soil.copernicus.org/articles/10/189/2024/soil-10-189-2024-discussion.html	Ali et al. (2024)	Research article
	16	https://soil.copernicus.org/articles/2/523/2016/soil-2-523-2016-discussion.html	Thompson et al. (2016)	Research article
TC	20	https://tc.copernicus.org/articles/17/3251/2023/tc-17-3251-2023-discussion.html	Brun et al. (2023)	Research article
	19	https://tc.copernicus.org/articles/5/341/2011/tc-5-341-2011-discussion.html	Mernild et al. (2011)	Research article
	18	https://tc.copernicus.org/articles/15/5473/2021/tc-15-5473-2021-discussion.html	Chen et al. (2021)	Research article
	15	https://tc.copernicus.org/articles/13/1187/2019/tc-13-1187-2019-discussion.html	SSallila et al. (2019)	Research article
	14	https://tc.copernicus.org/articles/7/1769/2013/tc-7-1769-2013-discussion.html	Wagnon et al. (2013)	Research article
WCD	10	https://wcd.copernicus.org/articles/2/181/2021/wcd-2-181-2021-discussion.html	Strandberg and Lind (2021)	Research article
	9	https://wcd.copernicus.org/articles/4/511/2023/wcd-4-511-2023-discussion.html	Worou et al. (2023)	Research article
	9	https://wcd.copernicus.org/articles/4/1087/2023/wcd-4-1087-2023-discussion.html	Boljka et al. (2023)	Research article
	9	https://wcd.copernicus.org/articles/3/777/2022/wcd-3-777-2022-discussion.html	Boljka et al. (2023)	Research article, Highlight
	9	https://wcd.copernicus.org/articles/2/311/2021/wcd-2-311-2021-discussion.html	White and Aiyyer (2021)	Research article, Highlight

Table S4. Number of highlight articles in EGU journals (editor's choice, letters and journal-specific manuscript types, 2024

Journal	Total published articles	Highight articles	Percentage
All EGU journals	3152	161	5.1%
ACP	673	21	3.1%
AMT	361	16	4.4%
ANGEO	31	2	6.5%
BG	274	24	8.8%
CP	129	10	7.8%
Esurf	66	9	13.6%
ESD	77	22	28.6%
Gchron	37	2	5.4%
Gchron	19	4	21.1%
GI	26	0	0.0%
GMD	384	7	1.8%
HESS	255	9	3.5%
NHESS	228	14	6.1%
NPG	37	5	13.5%
OS	82	2	2.4%
SE	70	0	0.0%
SOIL	50	4	8.0%
TC	284	8	2.8%
WCD	69	2	2.9%

Table S5. Number of special issues in the EGU journals. Numbers in brackets denote the interjournal special issues (Figure 14)

Year	ANGEO	ACP	AMT	BG	CP	ESurf	ESD	GChron	GC	GI
2002		2								
2003		3								
2004		8		1						
2005		11		3						
2006		3		7	4					
2007		11		7	1					
2008		8 (1)	1 (1)	3	3					
2009		12 (1)	1 (0)	8	2					
2010		11 (1)	4 (1)	6	3					
2011		15 (4)	6 (2)	8 (2)	0		1 (0)			
2012		14 (7)	7 (5)	9 (3)	8 (1)		2 (0)			1 (0)
2013		9 (8)	9 (8)	13 (2)	5 (2)	1 (0)	3 (2)			1 (0)
2014		17 (14)	12 (10)	8 (2)	1 (0)	2 (0)	0			0
2015		16 (9)	8 (7)	10 (3)	4 (0)	1 (0)	3 (0)			2 (1)
2016		10 (7)	5 (5)	5 (3)	7 (4)	1 (1)	1 (1)			0
2017		6 (6)	9 (5)	7 (1)	1 (1)	2 (0)	5 (1)			1 (1)
2018	1	14 (12)	13 (9)	5 (3)	4 (1)	1 (1)	3 (2)			0
2019	4	7 (6)	5 (5)	1 (1)	1 (1)	0	0	1 (0)		0
2020	1	16 (15)	11 (11)	6 (5)	3 (0)	0	5 (4)	0	1 (0)	0
2021	1	8 (4)	3 (3)	5 (4)	1 (1)	0	1 (0)	0	2 (1)	0
2022	0	5 (4)	3 (3)	1 (0)	0	0	0	0	1 (0)	0
2023	1	6 (5)	6 (3)	8 (3)	4 (2)	2 (1)	4 (1)	0	1 (1)	0
2024	2	3 (3)	1 (1)	2 (1)	1 (1)	1 (0)	3 (2)	1 (0)	2 (1)	1 (0)

	GMD	HESS	NHESS	NPG	OS	SE	SOIL	TC	WCD	
2002		1 (0)		3 (0)						
2003		4 (0)		4 (0)						
2004		5 (0)		8 (0)						
2005		2 (0)		3 (0)						
2006		4 (0)		3 (0)	1					
2007		5 (0)		3 (0)	0					
2008	1 (0)	3 (0)		5 (0)	2 (0)					
2009	0	5 (0)		1 (0)	3 (1)					
2010	2 (1)	8 (0)		5 (0)	0			3 (0)		
2011	3 (0)	6 (0)		5 (0)	5 (3)	2 (0)		2 (1)		
2012	3 (0)	6 (0)		3 (0)	2 (1)	1 (0)		1 (1)		
2013	8 (4)	6 (2)	9 (1)	5 (0)	3 (2)	2 (0)		3 (2)		
2014	6 (3)	5 (0)	4 (0)	4 (0)	2 (2)	3 (0)	1 (0)	0		
2015	10 (3)	4 (2)	6 (1)	0	3 (1)	0	2 (0)	2 (2)		
2016	4 (4)	11 (1)	3 (1)	3 (0)	3 (2)	3 (1)	2 (0)	5 (2)		
2017	2 (0)	6 (2)	7 (2)	3 (0)	0	2 (1)	0	0		
2018	3 (3)	3 (2)	4 (0)	2 (1)	5 (2)	3 (2)	3 (2)	1 (0)		
2019	4 (1)	2 (0)	3 (0)	2 (0)	2 (2)	2 (0)	0	0	1 (1)	
2020	6 (5)	7 (3)	10 (3)	0	3 (3)	9 (1)	1 (0)	1 (1)	1 (1)	
2021	5 (3)	5 (1)	8 (0)	2 (1)	4 (2)	3 (1)	1 (0)	1 (1)	0	
2022	1 (1)	3 (0)	5 (1)	0	1 (1)	2 (0)	0	0	2 (2)	
2023	4 (4)	4 (2)	6 (1)	1 (0)	4 (1)	0	1 (0)	3 (3)	0	
2024	5 (3)	2 (1)	5 (1)	4 (0)	4 (0)	1 (0)	1 (0)	3 (1)	2 (2)	

Table S6. Open access article processing charges (June 2025) by various publishers and learned societies. Fees for regular research articles are listed.

Publisher/Society & Journals (examples)	APC	OA option
Wiley, *APCs 2025*		
Journal of Geophysical Research, Reviews of Geophysics	$4070	Hybrid
AGU Advances	$3460	Full OA
Geophysical Research Letters	$3190	Full OA
Journal of Advances in Modeling Earth Systems (JAMES)	$2650	Full OA
Elsevier, *APCs 2025*		
Atmospheric Environment	2720 €	Hybrid
Atmospheric Environment X	1740 €	Full OA
Atmospheric Research	3100 €	Hybrid
Springer, *Full OA 2025, Hybrid*		
Nature Communications	5890 €	Full OA
npj Climate and Atmospheric Science	3090 €	Full OA
Nature (Climate Change, Geoscience, ...)	10,690 €	Hybrid
Scientific Reports	2390 €	Full OA
Taylor & Francis, *Open Access Cost Finder 2025*		
Atmosphere-Ocean	3170 €	Hybrid
Environmental Hazards	3840 €	Hybrid
Hydrological Sciences Journal	3505 €	Hybrid
MDPI, *Journal-specific APCs*		
Atmosphere	CHF 2400	Full OA
Hydrology	CHF 1800	Full OA
Oceans	CHF 1600	Full OA
Soil Systems	CHF 1000	Full OA
Frontiers, *Journal-group-specific APCs*		
Journals in fields that have lower research budgets	CHF 1175	Full OA
Journals in fields that support open access	CHF 1950	Full OA
Mature and impactful journals that are well-established and in fields that support open access	CHF 2550	Full OA
Sustainable and impactful journals in fields that support open access	CHF 3150	Full OA
EGU/Copernicus, Table 3 in main text		
ACP, AMT, BG, ESD, ESurf, GChron, HESS, NHESS, OS, SE, SOIL, TC	1800 €	Full OA
ANGEO, GC, GI, NPG, WCD	1350 €	Full OA
CP, GMD	1980 €	Full OA
PLoS, *PLoS Publication Fees*		
PLOS One	$1046	Full OA
PLOS Climate	$2496	Full OA
eLife Sciences Publications, *Publication Fees, 2024*		
eLife	$2500	Full OA
American Association for the Advancement of Science (AAAS), *APCs 2025*		
Science Advances	$5450	Full OA
National Academy of Sciences USA, *APCs 2025*		
Proceedings of the National Academy of Sciences (PNAS)	$5495	Immediate full OA
American Chemical Society (ACS), *Journal APCs 2025*		
Full OA	$3500	
Hybrid	$4500	
Royal Society of Chemistry (RSC), *APCs 2025*		
Environmental Science: Atmospheres	2100 £	Full OA
All Hybrid journals	3000 £	

S1 ACP guidelines for editors

https://www.atmospheric-chemistry-and-physics.net/policies/guidelines_for_editors.html last access: 2025-01-19

Version: January 2024

S1.1 General guidelines

- Handle at least 6 manuscripts per year and help to achieve short manuscript processing times as well as a fairly even distribution of editorial workload.
- Please respond to the editor calls and also consider handling submissions outside your personal subject areas.
- You can view the list of unassigned manuscripts at *https://editor.copernicus.org/ACP/my_manuscript_overview* (also sent regularly to editors).
- Please remember to indicate your absence time at *https://administrator.copernicus.org/define_absence*.

S1.2 Manuscript handling

S1.2.1 Agreement to handle manuscripts

All preprints under review for ACP are posted on EGUsphere and receive an egusphere doi. They undergo the review for ACP, applying the journal review criteria.

If you have any questions about ACP's manuscript handling procedures, our Senior and Executive editors are always happy to help. See editorial board or send an email to (mailto:acp-executive-editors@copernicus.org

- Please react promptly to editor assignments by the Executive or Senior editors for manuscripts that were not picked up in the regular editor calls.
- Do not accept requests from authors to handle their manuscript. The Executive or Senior editors will make a decision on how to proceed when it will not be picked up during the regular editor calls.

S1.2.2 Initial decision

"Initial decision" means the editor's decision whether to proceed with peer review in ACP, including whether the manuscript type is appropriate.

- Your initial decision is anonymous during the access review. Your name is not revealed to the authors in the automatic notification emails about editor assignment and rejection before/after quick reports. Editor names are disclosed to authors only upon approval of a manuscript for peer review.
- Quick reports or "access reviews" from referees can be used to help guide your decision whether to proceed to peer review. These slow down the overall handling of manuscripts, so should be used only when necessary (e.g., if the manuscript is at the edge of your expertise.)
- The fit to the journal scope should be assessed entirely by the handling editor, not by the referees. See http://www.atmospheric-chemistry-and-physics.net/about/aims_and_scope.html. Manuscripts outside the scope should be rejected prior to public review and discussion. Articles with a local focus must clearly explain how the results extend and compare with current knowledge. After this stage, it is normally not appropriate to reject a manuscript for being out of scope.

- Recategorization of Research Articles into Measurement Reports or Technical Notes should be considered. See http://www.atmospheric-chemistry-and-physics.net/about/manuscript_types.html; as part of your initial decision, you have the option to confirm the initial manuscript type or change it using the dropdown list.
- Resubmission to an alternative EGU journal (e.g., AMT, GMD) can be recommended by rejecting the manuscript as being out of scope and selecting the alternative journal from the drop-down list. The authors will receive a corresponding link in the email informing about 'rejection, out-of-scope'.
- Check compliance with the guidelines for authors regarding the title, abstract, and concluding section.
- Adherence to the EGU data policy must be checked to ensure that the data presented are openly accessible in accordance with Copernicus' data policy and fulfil the requirements as detailed in the manuscript types. In Measurement Reports, data availability statements such as 'upon request from the authors' are not acceptable.
- If you handle a manuscript submitted to a special issue, please check whether it is in the scope of the SI: if you are unsure, please contact the SI coordinator(s).
- The short summary should be checked to ensure that it is immediately publishable and provides an accurate, accessible, and non-technical summary of the article.
- The similarity report should be checked, but do not base your decision on the similarity index alone. In case of a high index, carefully check the actual overlap with the sources listed in the similarity report. Reasonable self-referencing in the introduction and method sections should be regarded as less critical than extensive similarities in the results, discussion and/or conclusions sections. Note that theses and documents are not peer-reviewed publications and, thus, similarity to documents by the same authors should not be considered plagiarized. If you notice high similarity to a preprint posted on another preprint server, let the authors know that double preprinting is not permitted. Contact the editorial support team to initiate linking of the external preprint to EGUsphere.

S1.2.3 Review process

- Remind the referees of the manuscript type specific guidelines in the personal message during referee nomination. This refers to all but regular Research Articles (refer referees to *https://www.atmospheric-chemistry-and-physics.net/about/manuscript_types.html*).
- Ensure that at least two referees post their comments in the interactive public discussion of every preprint. If necessary, please complement automated emails by personal emails.
- You may ask the authors for suitable referee suggestions if necessary. In case of significant delays in the review process or other rare and unusual cases, you may substitute a referee report by an editor comment or make a decision based on a single report if appropriate.
- Consider further review rounds to evaluate revised manuscripts only if necessary. Usually, the recommendation of minor revisions does not require contacting the same referee again.
- Ensure that authors post their response to all relevant referee and public comments in the interactive discussion before considering a revised manuscript for publication in ACP.
- Outstanding referee nominations recognizing particularly helpful and constructive contributions during a review process can be made by sending an email to the Executive/Senior Editors with the name of the referee, manuscript number, and brief justification. Nominations will be considered for the annual ACP outstanding reviewer award.

– Mail archive: Please cc editor@mailarchive.copernicus.org and add the manuscript number in the subject line in all personal emails to referees, authors, and the editorial support team. This way, the full correspondence regarding a paper is accessible for Copernicus and the executive/senior editors. These emails will be deleted some time after the final status of the paper.

S1.2.4 Final decision

– Enforce high quality standards for final revised papers in ACP by iteration of review and revision or rejection of deficient manuscripts. See the criteria at *http://www.atmospheric-chemistry-and-physics.net/peer_review/review_criteria.html*. Posting and public review of a preprint does not guarantee acceptance for ACP: As is the case with other preprint repositories, submitted preprints will remain permanently accessible on the EGU Preprint Repository, EGUsphere. Upon rejection by an ACP editor, any relation to ACP (both in EGUsphere and in ACP) is removed, therefore rejection does not prevent resubmission to an alternative journal.

– Substantial and scientifically useful but non-public exchange between authors and referees or other commentators can be published as an editor comment (provided that all involved parties agree to the publication). See for example:
https://acp.copernicus.org/preprints/acpd-2008-0250/
https://acp.copernicus.org/preprints/8/S12406/2009/acpd-8-S12406-2009.pdf
https://acp.copernicus.org/preprints/8/S12426/2009/acpd-8-S12426-2009.pdf

– Nominate a paper as a Highlight Article, if appropriate, by selecting this option during the final decision phase. Please write a short justification of why the article meets the criteria (see https://www.atmospheric-chemistry-and-physics.net/about/manuscript_types.html). Highlight articles are accompanied by an executive editor statement, which will be based on your written justification.

– If you decide to accept a critically reviewed manuscript, please post an Editor Comment in the discussion. In such cases, you should also write a personal email to the critical referees, briefly explaining your decision and thanking them for their effort. Otherwise, referees might get the impression that their input is not valued. When the majority of referees were very critical and after extensive discussions, the editor should normally conclude with a public editor comment.

S1.2.5 Further information on interactive open access publishing

Further general guidelines and background information are given on the journal web pages
http://www.atmospheric-chemistry-and-physics.net/for_reviewers/obligations_for_editors.html
http://www.atmospheric-chemistry-and-physics.net/about/publication_ethics.html
http://www.atmospheric-chemistry-and-physics.net/about/general_terms.html
and on EGUsphere
https://www.egusphere.net/preprints/.

S2 ACP guidelines for authors

https://www.atmospheric-chemistry-and-physics.net/policies/guidelines_for_authors.html last access: 2025-01-19

Version: September 2023

ACP allows some flexibility in the structure of articles. Nevertheless, we ask all authors to adhere to the following guidelines

for particular components of the article. To be considered for publication, all articles must convincingly demonstrate important implications for our understanding of the state and behaviour of the atmosphere and climate, in particular with appropriate text in the concluding section.

S2.1 Article title

Titles should be concise and consistent with the content and purpose of the article. For research articles, ACP prefers titles that highlight the scientific results/findings or implications of the study. Examples of preferred result- and implication-based titles:
Observed relationship between aerosol emissions and cloud albedo over the Atlantic (neutral)

- Increases in aerosol enhance cloud albedo over the Atlantic (definite)
- Increases in aerosol since 2010 enhanced global mean cloud albedo by 20% (quantitative)
- Aerosol-cloud brightening and the implications for climate sensitivity (neutral)
- Recent changes in aerosol-cloud brightening imply reduced climate sensitivity (definite)

Examples of less-preferred titles that highlight only the topic or method are given below. Authors may be asked to convert articles with a methodological title to a Technical Note:

- An exploration of the effect of aerosol on cloud properties
- Machine learning to understand aerosol effects on clouds
- Aerosol effects on clouds in the European climate model

S2.2 Abstract

Abstracts should have fewer than 250 words and provide a concise and accessible summary of the purpose, results, and implications of the research. ACP expects that abstracts will normally include the following components:

1. The topic of the article and why it is important;
2. The status of scientific understanding;
3. The gap in knowledge being addressed;
4. The objectives, questions, or hypotheses of the study;
5. The approach such as modelling, measurements, machine learning, etc.;
6. The main results with important quantitative information, if appropriate;
7. The importance and implications of the results.

An example abstract based on this structure is given below (numbers not to be included). Any of the components can be expanded as appropriate while keeping a balance of all components:

1) Aerosol radiative forcing of climate is one of the largest uncertainties in historical climate change, and this uncertainty affects future climate projections. 2) Previous modelling studies have shown that the forcing depends almost entirely on the magnitude of anthropogenic emissions. 3) However, this result fails to explain why similar emissions cause different forcings in the 1980s compared to the present day. 4) Here, we aim to explain the cause of this difference by accounting for the effects

of temperature on aerosol processes. 5) We use a global climate model driven by the latest emission dataset and constrained by global satellite measurements of aerosol optical depth. 6) The results show that an increase in global mean temperature of 1 K causes a reduction in aerosol lifetime in the atmosphere of 30% due to an increased removal rate by precipitation. 7) This sensitivity means that future changes in climate are unlikely to respond linearly to changes in aerosol emissions.

S2.3 Concluding section

Every article must have a final section where the overall advances are concisely summarized and put in context. Although the results section may include some discussion, a synthesis and interpretation must appear in the final section. ACP expects that the concluding section will normally include the following components, although not necessarily in separate paragraphs:

- **Summary**: Summarize the main results and relate them to the objectives, questions, or hypotheses of the study. The summary should include the main quantitative results.
- **Synthesis/interpretation**: Explain and interpret the results concisely to enable readers to make sense of them as a whole.
- **Comparison and context**: Compare the results with previous studies to put them in context. Explain consistencies, inconsistencies, and advances in knowledge.
- **Caveats and limitations**: State how these affect confidence in the overall results, and where future work is needed.
- **Implications**: Discuss what the results mean for our understanding of the state and/or behaviour of the atmosphere and climate, which is the main requirement for publication in ACP. The editor's acceptance/rejection decision will be strongly guided by this component of the concluding section.

S3 ACP Senior Editor Job Description

Version: May 2021

ACP Senior Editors are distinguished and experienced members of the ACP editorial board. They are selected and appointed by the Executive Editors based on their outstanding commitment and excellence in their editorial work and handling of manuscripts. Each Senior Editor serves as subject area coordinator for one or more of the eight ACP subject areas according to their scientific expertise and core interests. *https://www.atmospheric-chemistry-and-physics.net/about/subject_areas.html*.

The names of Senior Editors and their subject areas of coordination will be highlighted on the ACP editorial board page (with the Executive Editors): *https://www.atmospheric-chemistry-and-physics.net/editorial_board.html* . The Senior Editors take responsibility for the editorial coordination of their subject area(s) and carry out the following tasks in collaboration and exchange with the Executive Editors:

- Be a point of contact for editors within the subject area to provide guidance and feedback
- Handle ACP Letters and Opinions or assign appropriate editors
- Solicit high profile articles, in particular Opinions and Review Articles
- Invite or provide public comments on ACP Letters, Opinions, or other articles
- Approve or initiate the highlighting of outstanding papers in the EGU highlight article selection and in the EGU Encyclopedia of Geosciences
- Approve special issue proposals

- Oversee and shape the editorial board within the subject area to maintain high editorial standards
- Nominate candidates for outstanding editor and reviewer awards
- Assign editors to unassigned manuscripts or reject/recategorize them

The tasks may be adjusted and shared with the Executive Editors as needed. The appointment as ACP Senior Editor is for two years, renewable upon mutual agreement with the Executive Editors.

S4 Copernicus data policy

https://publications.copernicus.org/services/data_policy.html last access: 2025-01-19

S4.1 Data policy for all EGU/Copernicus journals

The output of research is not only journal articles but also data sets, model code, samples, etc. Only the entire network of interconnected information can guarantee integrity, transparency, reuse, and reproducibility of scientific findings. Moreover, all of these resources provide great additional value in their own right. Hence, it is particularly important that data and other information underpinning the research findings are *"findable, accessible, interoperable, and reusable"* (FAIR Principles (2016), Wilkinson et al. (2016)) not only for humans but also for machines.

Therefore, Copernicus Publications requests depositing data that correspond to journal articles in reliable (public) data repositories, assigning digital object identifiers, and properly citing data sets as individual contributions. Please find your appropriate data repository in the registry for research data repositories: *re3data.org* (last access: 2025-01-19). A data citation in a publication resembles a bibliographic citation and needs to be included in the publication's reference list. To foster the accessibility as well as the proper citation of data, Copernicus Publications requires all authors to provide a statement on the availability of underlying data as the last paragraph of each article (see section data availability). In addition, data sets, model code, video supplements, video abstracts, International Geo Sample Numbers, and other digital assets should be linked to the article through DOIs in the assets tab. With *Earth System Science Data (ESSD)* Copernicus Publications provides a journal dedicated to the publication of data papers, including peer review of data sets. Authors should consider submitting a data paper to ESSD in addition to their research paper in another journal published by Copernicus Publications.

Best practice following the *Joint Declaration of Data Citation Principles* initiated by FORCE 11 (Martone, 2014):

S4.1.1 Preamble

Sound, reproducible scholarship rests upon a foundation of robust, accessible data. For this to be so in practice as well as theory, data must be accorded due importance in the practice of scholarship and in the enduring scholarly record. In other words, data should be considered legitimate, citable products of research. Data citation, like the citation of other evidence and sources, is good research practice and is part of the scholarly ecosystem supporting data reuse. In support of this assertion, and to encourage good practice, we offer a set of guiding principles for data within scholarly literature, another dataset, or any other research object.

S4.1.2 Principles

The Data Citation Principles cover purpose, function and attributes of citations. These principles recognize the dual necessity of creating citation practices that are both human understandable and machine-actionable. These citation principles are not

comprehensive recommendations for data stewardship. And, as practices vary across communities and technologies will evolve over time, we do not include recommendations for specific implementations, but encourage communities to develop practices and tools that embody these principles.

The principles are grouped so as to facilitate understanding, rather than according to any perceived criteria of importance.

1. **Importance:** Data should be considered legitimate, citable products of research. Data citations should be accorded the same importance in the scholarly record as citations of other research objects, such as publications.
2. **Credit and attribution:** Data citations should facilitate giving scholarly credit and normative and legal attribution to all contributors to the data, recognizing that a single style or mechanism of attribution may not be applicable to all data.
3. **Evidence:** In scholarly literature, whenever and wherever a claim relies upon data, the corresponding data should be cited.
4. **Unique identification:** A data citation should include a persistent method for identification that is machine actionable, globally unique, and widely used by a community.
5. **Access:** Data citations should facilitate access to the data themselves and to such associated metadata, documentation, code, and other materials, as are necessary for both humans and machines to make informed use of the referenced data.
6. **Persistence:** Unique identifiers, and metadata describing the data, and its disposition, should persist – even beyond the lifespan of the data they describe.
7. **Specificity and verifiability:** Data citations should facilitate identification of, access to, and verification of the specific data that support a claim. Citations or citation metadata should include information about provenance and fixity sufficient to facilitate verifying that the specific timeslice, version and/or granular portion of data retrieved subsequently is the same as was originally cited.
8. **Interoperability and flexibility:** Data citation methods should be sufficiently flexible to accommodate the variant practices among communities, but should not differ so much that they compromise interoperability of data citation practices across communities.

S4.1.3 COPDESS

In addition to promoting these data citation principles, Copernicus Publications is a signatory of the *Commitment statement by the Coalition on Publishing Data in the Earth and Space Sciences (COPDESS) (2014)* and the *Enabling FAIR data Commitment Statement in the Earth, Space, and Environmental Sciences (2018)*.

S4.1.4 Statement on the availability of underlying data

Authors are required to provide a statement on how their underlying research data can be accessed. This must be placed as the section "Data availability" at the end of the manuscript. Please see the manuscript preparation guidelines for authors for the correct sequence. The best way to provide access to data is by depositing them (as well as related metadata) in FAIR-aligned reliable public data repositories, assigning digital object identifiers, and properly citing data sets as individual contributions. If different data sets are deposited in different repositories, this needs to be indicated in the data availability section. If data from a third party were used, this needs to be explained (including a reference to these data). Data Cite recommends the following elements for a data citation:

creators:

title, publisher/repository, identifier, publication year (e.g. Loew, A., Bennartz, R., Fell, F., Lattanzio, A., Doutriaux-Boucher, M., and Schulz, J.: Surface Albedo Validation Sites, EUMETSAT [data set], http://dx.doi.org/10.15770/EUM_SEC_CLM_1001,2015).

If the data are not publicly accessible at the time of final publication, the data statement should describe where and when they will appear, and provide information on how readers can obtain the data until then. Nevertheless, authors should make such embargoed data available to reviewers during the review process in order to foster reproducibility. The Copernicus review system allows to define such assets as 'access limited to reviewers' and reviewers must then sign that they will use such data only for the purpose of reviewing without making copies, sharing, or reusing.

In rare cases where the data cannot be deposited publicly (e.g., because of commercial constraints), a detailed explanation of why this is the case is required. The data needed to replicate figures in a paper should in any case be publicly available, either in a public database (strongly recommended), or in a supplement to the paper.

S4.1.5 Other underlying material

Data do not comprise the only information which is important in the context of reproducibility. Therefore, Copernicus Publications encourages authors to also deposit software, algorithms, model code, video supplements, video abstracts, International Geo Sample Numbers, and other underlying material on suitable FAIR-aligned repositories/archives whenever possible. These materials should be referenced in the article and cited via a persistent identifier such as a DOI. With regard to software citation, please refer to the FORCE11 Software Citation Principles (Smith et al., 2016).

S4.2 Geoscientific Model Development (GMD) code and data policy

https://www.geoscientific-model-development.net/policies/code_and_data_policy.html last access: 2025-01-19

The GMD code and data policy is fully compliant with the Copernicus data policy. Here we explain in particular the requirements in the context of GMD's focus on code and data directly related to numerical model development. In the policy document, code refers to computer instructions and algorithms made available as plain text. Here, data refers to any other information that is found outside of the main body of the manuscript and is required to either fully appreciate or reproduce the results presented in the manuscript.

S4.2.1 Core principles

Every paper must include a section at the end of the paper before the "Acknowledgements" entitled "Code and data availability". This section must include citations for the persistent public archives of the precise versions of all of the code and data associated with the paper. The generic means to access other versions of the code and data as well as the licence of the code should also be explained. The licence should conform to the Open Source Definition1. Suitable licences2 are for example GPL3 or MIT4. Where the authors cannot, for reasons beyond their control, publicly archive part or all of the code and data associated with a paper, they must clearly state the restrictions. They must also provide confidential access to the code and data for the editor and reviewers in order to enable peer review. The arrangements for this access must not compromise the anonymity of the reviewers. All manuscripts which do not make code and data available at this level are to be rejected. Where only part of the code or data is subject to these restrictions, the remaining code and/or data must still be publicly archived. In particular, authors must make every endeavour to publish any code whose development is described in the manuscript. Code and data access must

be provided at the time that the preprint is submitted. Embargoes, whether pending acceptance or for a defined period, are not acceptable.

S4.2.2 Scope

The code and data associated with a paper which are subject to the above requirements include, depending on the paper type, the following:

- the source code for the complete model or module or other coded product described in the paper (must be provided for model description, development and technical, and methods for assessment paper types);
- the manual and any other model documentation (applies to model description, development and technical, and methods for assessment, to the extent the editor considers applicable);
- all configuration files, boundary conditions, and input data (must be provided for experiment description papers and any other papers in which results from model runs are reported);
- data sets for forcing of models or comparison with model output (must be provided for papers describing such data sets or for papers in which model output are compared with such data);
- preprocessing, run control and postprocessing scripts covering every data processing action for all the results reported in the paper (applies for all papers, to the extent the editor considers applicable).

In every case, the citation from the paper must identify the exact version of the code and/or data used.

Although the code and data will not be reviewed formally, the editor and reviewers are free to make general comments on any code or data, if they so wish. During the review process, the ease of model download, compilation, and running of test cases may be assessed.

S4.2.3 Archive standards

A frozen version of the code and data as developed in the paper must be archived. Usually, a third-party archive is preferable. In some cases, such as when the code is a fragment from a larger model, authors may include the code in the supplement to the paper. Third-party archives must have the following:

- institutional support providing reasonable confidence that the material will remain available for many years/decades
- mechanisms preventing the depositor of the material from unilaterally removing it from the archive
- mechanisms for identifying the precise version of the material referred to in a persistent way. This will usually be a DOI.

Where code and data change during the revision process of the manuscript, the updated versions must also be archived. Authors must take care that the results in revised manuscripts are correctly associated with the corresponding archived data (with different DOIs referenced in the submitted and final manuscripts in cases where data have changed).

Many GMD authors find Zenodo5 a suitable archival location. Zenodo's GitHub integration6 makes archiving particularly easy for the large proportion of authors who manage their code using Git. Authors who need to archive a single documentation file, such as a technical report, may find the arXiv suitable7. Authors whose data are too large to be archived at Zenodo will need to identify a suitable alternative. Appropriate choices may depend on the topic of the paper, the funder of the research, and the country where the research was conducted. One of the repositories listed by Springer Nature8, PLOS9 or ESSD10 may be suitable. In any case, the requirements above must be satisfied.

Project or institution websites and online revision control sites such as GitHub11, GitLab12 or Bitbucket13 are made for code development but not suitable for archiving frozen code versions. Authors are encouraged to provide links to a website or revision control system as a preferred download location, so long as this is in addition to, and not instead of, the citation of an archive.

S4.2.4 Template for code and data availability section

The following code and data availability section meets the requirements of this policy for papers focussed on development of models or development of methods for assessment of models. Other wordings are, of course, possible so long as the required information is all present. For larger models it is very helpful if authors can identify the location of the main parts of the code that are discussed in the manuscript. For experiment description papers, evaluation papers, and some technical and development papers where details for a variety of different data sets or models are required, the section will be considerably longer.

The current version of model is available from the project website: url under the licence name licence. The exact version of the model used to produce the results used in this paper is archived on Zenodo (citation), as are input data and scripts to run the model and produce the plots for all the simulations presented in this paper (citation).

In line with the FORCE11 Joint Declaration of Data Citation Principles, the data citations should appear in the bibliography and be referenced in the text in the same way as other publications (Martone, 2014).

S4.3 Earth System Science Data (ESSD) data policy

https://www.earth-system-science-data.net/policies/data_policy.html last access: 2025-01-19

The ESSD data policy is fully compliant with the Copernicus data policy. In the following, *"must"* means that the stated actions are required, and the paper cannot be published without them; *"should"* means that the action is strongly encouraged, and consultation with ESSD editors is advised if these conditions are not met.

S4.3.1 Core principles

ESSD adheres to its goal to promote access, documentation, (re-)usability, and transparency of original data related to Earth system science. Please also see the section manuscript types to understand what types of data are acceptable.

Fundamentally, ESSD seeks to stimulate and facilitate an easy, free, and open exchange between researcher A who describes and provides a fresh, useful Earth system data product and researcher X who uses that product unhindered. Researcher A gains publication and distribution credit through citation and permanent identifiers. Researcher X gains confidence from ESSD-assured availability and quality. "Easy" applies to providing, archiving, downloading, and using. "Free" means without fees or other forms of payment, for providers or users. "Open" means without registration steps, password requests, access agreements, or other log-in barriers or tracking mechanisms. An ESSD "product" consists of a detailed description published in ESSD, linked to a dataset archived in a reliable data repository.

Before submitting a regular data description paper to ESSD, please consider the following:

- upon submission, all data must possess either a functional digital object identifier (DOI) or some form of preliminary access (review links) at the chosen repository; a data citation is mandatory in both cases;
- upon submission, all data must directly be accessible through link(s) in the manuscript;
- upon submission, authors must certify some form of fully anonymous review access, directly at the chosen repository (i.e. no registration, name, email or other information is required of reviewers as they access the data);

- upon submission, all data should be stored in non-proprietary community-established formats and include at least basic usage information;
- upon publication, all data must possess a functional DOI and citation;
- data should be available under a non-restrictive license such as CC0 or CC BY;
- data must not be tied to any additional coercive/unethical usage agreements (e.g. co-authorship requirements upon usage).
- Individuals, institutions, or nations may impose a variety of overarching open-access standards and licenses; ESSD intends its processes and products to meet or exceed expectations of those mandates or guidelines.

S4.3.2 Data availability statement

ESSD adheres to the Joint Declaration of Data Citation Principles initiated by FORCE11, as well as DataCite recommendations.

Authors are required to provide a statement on how their underlying research data can be accessed. This must be placed in a "Data availability" section at the end of the manuscript. Please see the manuscript preparation guidelines for the correct sequence. The following is a blueprint of the data availability statement:

Data described in this manuscript can be accessed at repository under data doi (data citation).
A data citation resembles a bibliographic citation. Like any bibliographic citation, the full reference must be located in the publication's list of references following this style:
creators: title, publisher/repository, identifier, publication year.
Example:
Loew, A., Bennartz, R., Fell, F., Lattanzio, A., Doutriaux-Boucher, M., and Schulz, J.: Surface Albedo Validation Sites, EUMETSAT [data set], http://doi.org/10.15770/EUM_SEC_CLM_1001, 2015.
This is also the section that holds review links or other access tokens to your data set if necessary for the review. Optionally, overarching project URLs or other meta-information can be included. The reader must gain direct access to the data by the means described in this section.

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