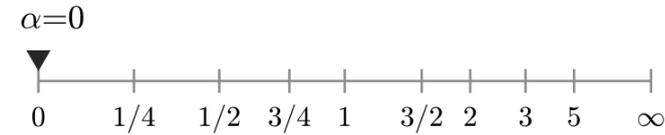


Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

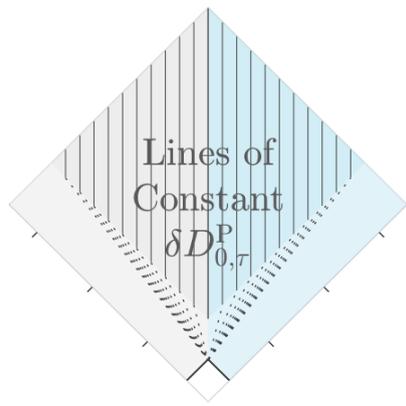
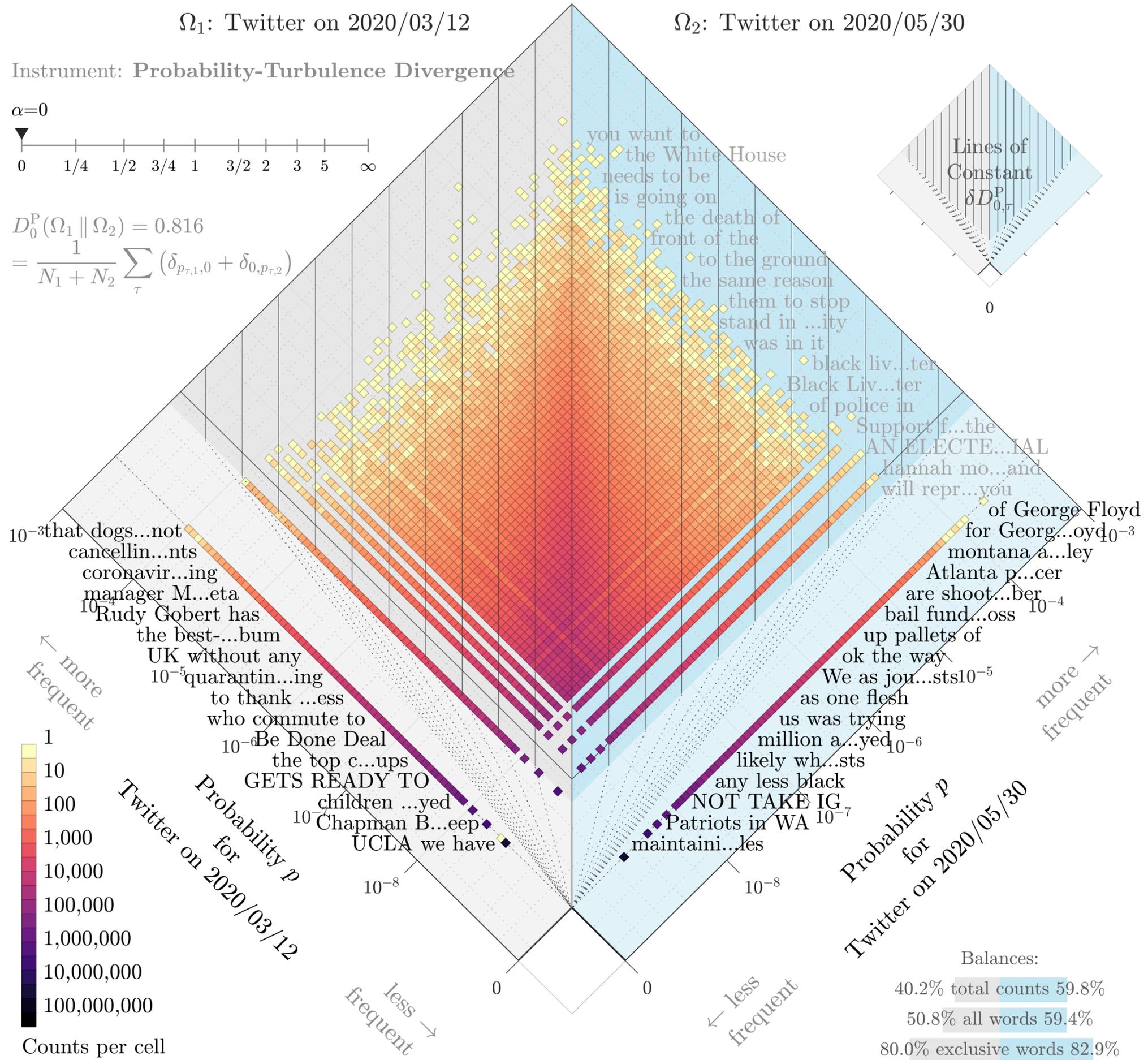
Divergence contribution $\delta D_{0,\tau}^P (\times 10^{-6}\%)$

Instrument: Probability-Turbulence Divergence



$$D_0^P(\Omega_1 \parallel \Omega_2) = 0.816$$

$$= \frac{1}{N_1 + N_2} \sum_{\tau} (\delta_{p_{\tau,1,0}} + \delta_{0,p_{\tau,2}})$$



Rank	Contribution	Word
1	40,753,560.5	of George Floyd
2	40,753,560.5	community in Minneapolis
3	40,753,560.5	for George Floyd
18	43,073,107	that dogs cannot
20	43,073,107	announced that dogs
23	43,073,107	dogs cannot contract
24	43,073,107	Organization has an...ced
17	40,753,560.5	white vs black
18	40,753,560.5	not white vs
19	40,753,560.5	everybody vs racists
36	43,073,107	now be released
37	43,073,107	held in quarantine
40	43,073,107	previously held in
41	43,073,107	Dogs previously held
24	40,753,560.5	death of George
31	40,753,560.5	touchy topic if
78	43,073,107	Mitchell has tested
51	40,753,560.5	cops shutting down
52	40,753,560.5	see cops shutting
88	43,073,107	testing free for
60	40,753,560.5	montana and miley
60	40,753,560.5	see hannah montana
62	40,753,560.5	kkk rallies is
63	40,753,560.5	down kkk rallies
64	40,753,560.5	shutting down kkk
99	43,073,107	cancelling sporting...nts
102	43,073,107	we cancelling sporting
124	43,073,107	Donovan Mitchell has
69	40,753,560.5	not all cops
87	40,753,560.5	called black people
89	40,753,560.5	Atlanta before the
169	43,073,107	high-level Trump official
109	40,753,560.5	officer just called
110	40,753,560.5	NYPD officer just
175	43,073,107	coronavirus testing costs
180	43,073,107	to make testing
182	43,073,107	make testing free
183	43,073,107	Administration has the
115	40,753,560.5	cops are wearing
184	43,073,107	the Administration has

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

45.2%—54.8%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

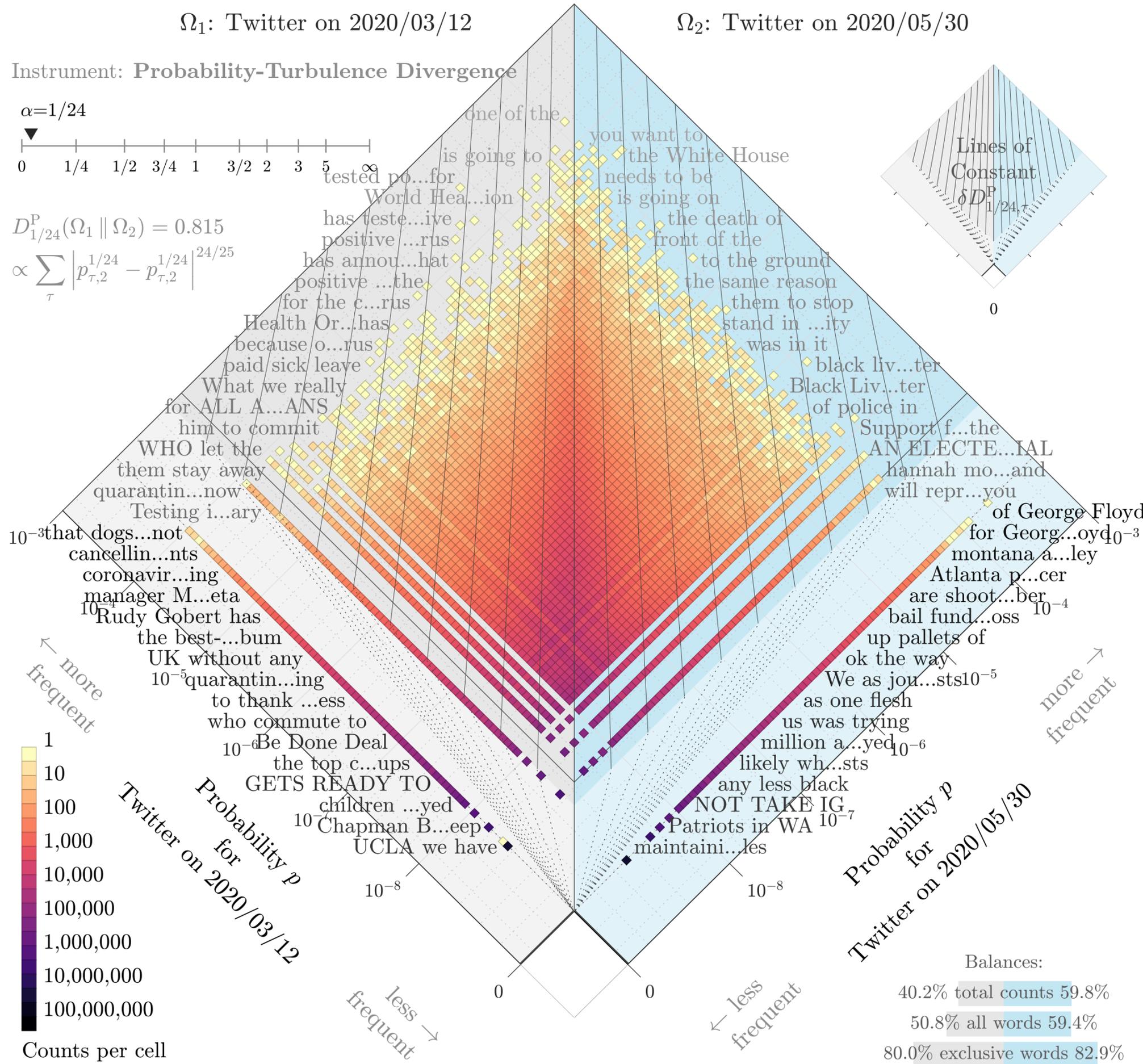
Divergence contribution $\delta D_{1/24,\tau}^P (\times 10^{-6}\%)$

Instrument: **Probability-Turbulence Divergence**



$D_{1/24}^P(\Omega_1 \parallel \Omega_2) = 0.815$

$\propto \sum_{\tau} \left| p_{\tau,2}^{1/24} - p_{\tau,2} \right|^{24/25}$



3	2	1	0	1	2	3
			40,753,560.5 \Rightarrow 1			of George Floyd
			40,753,560.5 \Rightarrow 7			community in Minneapolis
			40,753,560.5 \Rightarrow 13			for George Floyd
			18 \Rightarrow 43,073,107			that dogs cannot
			20 \Rightarrow 43,073,107			announced that dogs
			23 \Rightarrow 43,073,107			dogs cannot contract
			24 \Rightarrow 43,073,107			Organization has an...
			40,753,560.5 \Rightarrow 17			white vs black
			40,753,560.5 \Rightarrow 18			not white vs
			40,753,560.5 \Rightarrow 19			everybody vs racists
			36 \Rightarrow 43,073,107			now be released
			37 \Rightarrow 43,073,107			held in quarantine
			40 \Rightarrow 43,073,107			previously held in
			41 \Rightarrow 43,073,107			Dogs previously held
			40,753,560.5 \Rightarrow 24			death of George
			40,753,560.5 \Rightarrow 31			touchy topic if
			78 \Rightarrow 43,073,107			Mitchell has tested
			40,753,560.5 \Rightarrow 51			cops shutting down
			40,753,560.5 \Rightarrow 52			see cops shutting
			88 \Rightarrow 43,073,107			testing free for
			40,753,560.5 \Rightarrow 60			montana and miley
			40,753,560.5 \Rightarrow 60			see hannah montana
			40,753,560.5 \Rightarrow 62			kkk rallies is
			40,753,560.5 \Rightarrow 63			down kkk rallies
			40,753,560.5 \Rightarrow 64			shutting down kkk
			99 \Rightarrow 43,073,107			cancelling sporting...
			102 \Rightarrow 43,073,107			we cancelling sporting
			124 \Rightarrow 43,073,107			Donovan Mitchell has
			40,753,560.5 \Rightarrow 69			not all cops
			40,753,560.5 \Rightarrow 87			called black people
			40,753,560.5 \Rightarrow 89			Atlanta before the
			169 \Rightarrow 43,073,107			high-level Trump official
			40,753,560.5 \Rightarrow 109			officer just called
			40,753,560.5 \Rightarrow 110			NYPD officer just
			175 \Rightarrow 43,073,107			coronavirus testing costs
			180 \Rightarrow 43,073,107			to make testing
			182 \Rightarrow 43,073,107			make testing free
			183 \Rightarrow 43,073,107			Administration has the
			40,753,560.5 \Rightarrow 115			cops are wearing
			184 \Rightarrow 43,073,107			the Administration has

Balances:

40.2% total counts 59.8%

50.8% all words 59.4%

80.0% exclusive words 82.9%

45.7%—54.3%

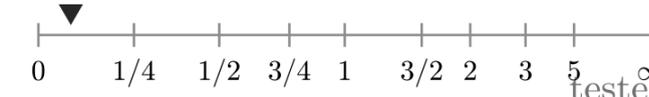
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{1/12,\tau}^P (\times 10^{-6}\%)$

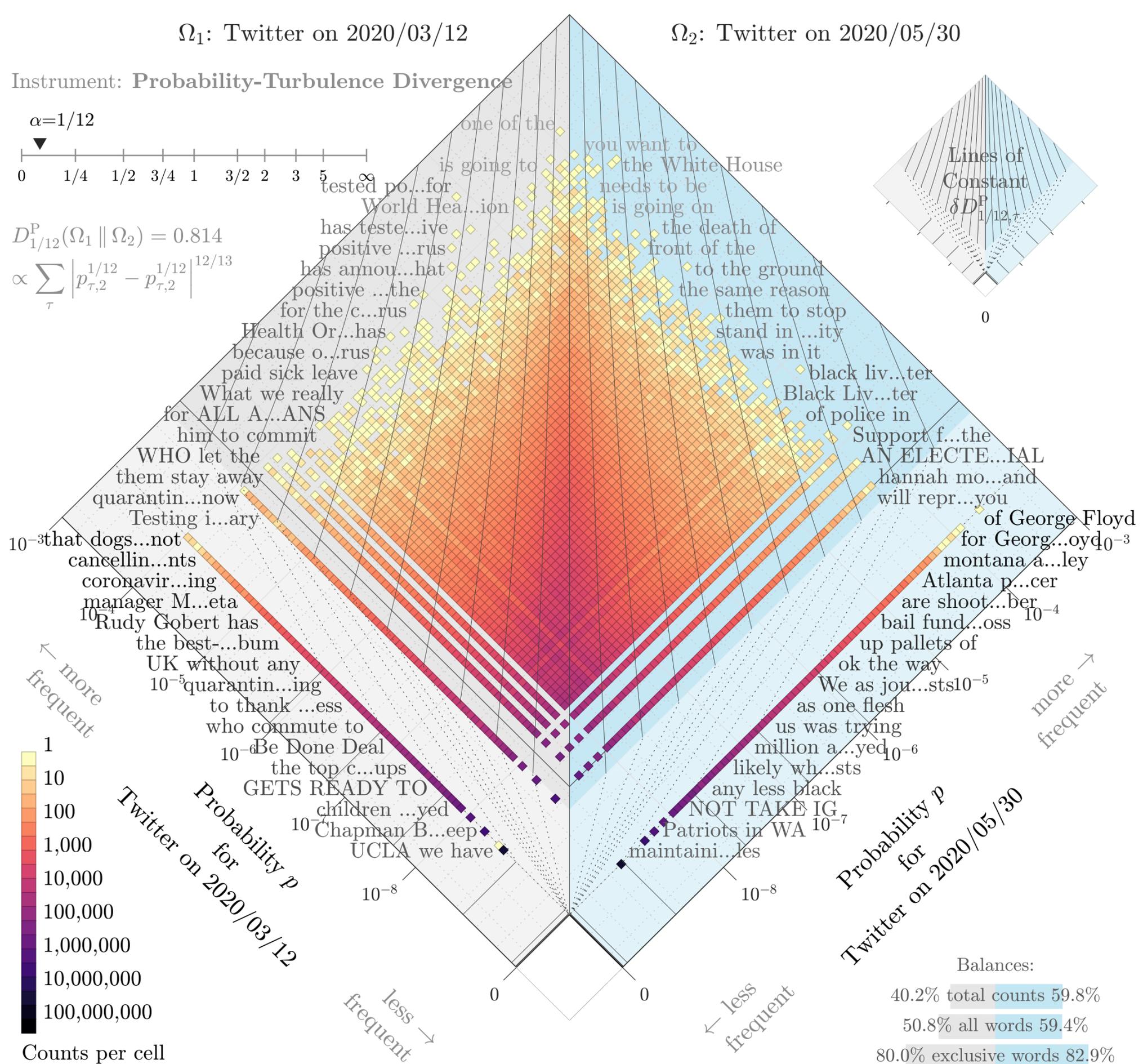
Instrument: Probability-Turbulence Divergence

$\alpha=1/12$



$$D_{1/12}^P(\Omega_1 \parallel \Omega_2) = 0.814$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{1/12} - p_{\tau,2} \right|^{12/13}$$



4	3	2	1	0	1	2	3	4
				40,753,560.5 \Rightarrow 1				
				40,753,560.5 \Rightarrow 7				
				40,753,560.5 \Rightarrow 13				
				\triangleleft that dogs cannot	18 \Rightarrow 43,073,107			
				\triangleleft announced that dogs	20 \Rightarrow 43,073,107			
				\triangleleft dogs cannot contract	23 \Rightarrow 43,073,107			
				\triangleleft Organization has an...ced	24 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 17				
				40,753,560.5 \Rightarrow 18				
				40,753,560.5 \Rightarrow 19				
				\triangleleft now be released	36 \Rightarrow 43,073,107			
				\triangleleft held in quarantine	37 \Rightarrow 43,073,107			
				\triangleleft previously held in	40 \Rightarrow 43,073,107			
				\triangleleft Dogs previously held	41 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 24				
				40,753,560.5 \Rightarrow 31				
				\triangleleft Mitchell has tested	78 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 51				
				40,753,560.5 \Rightarrow 52				
				\triangleleft testing free for	88 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 60				
				40,753,560.5 \Rightarrow 60				
				40,753,560.5 \Rightarrow 62				
				40,753,560.5 \Rightarrow 63				
				40,753,560.5 \Rightarrow 64				
				\triangleleft cancelling sporting...nts	99 \Rightarrow 43,073,107			
				\triangleleft we cancelling sporting	102 \Rightarrow 43,073,107			
				\triangleleft Donovan Mitchell has	124 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 69				
				40,753,560.5 \Rightarrow 87				
				40,753,560.5 \Rightarrow 89				
				\triangleleft high-level Trump official	169 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 109				
				40,753,560.5 \Rightarrow 110				
				\triangleleft coronavirus testing costs	175 \Rightarrow 43,073,107			
				\triangleleft to make testing	180 \Rightarrow 43,073,107			
				\triangleleft make testing free	182 \Rightarrow 43,073,107			
				\triangleleft Administration has the	183 \Rightarrow 43,073,107			
				40,753,560.5 \Rightarrow 115				
				\triangleleft the Administration has	184 \Rightarrow 43,073,107			

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

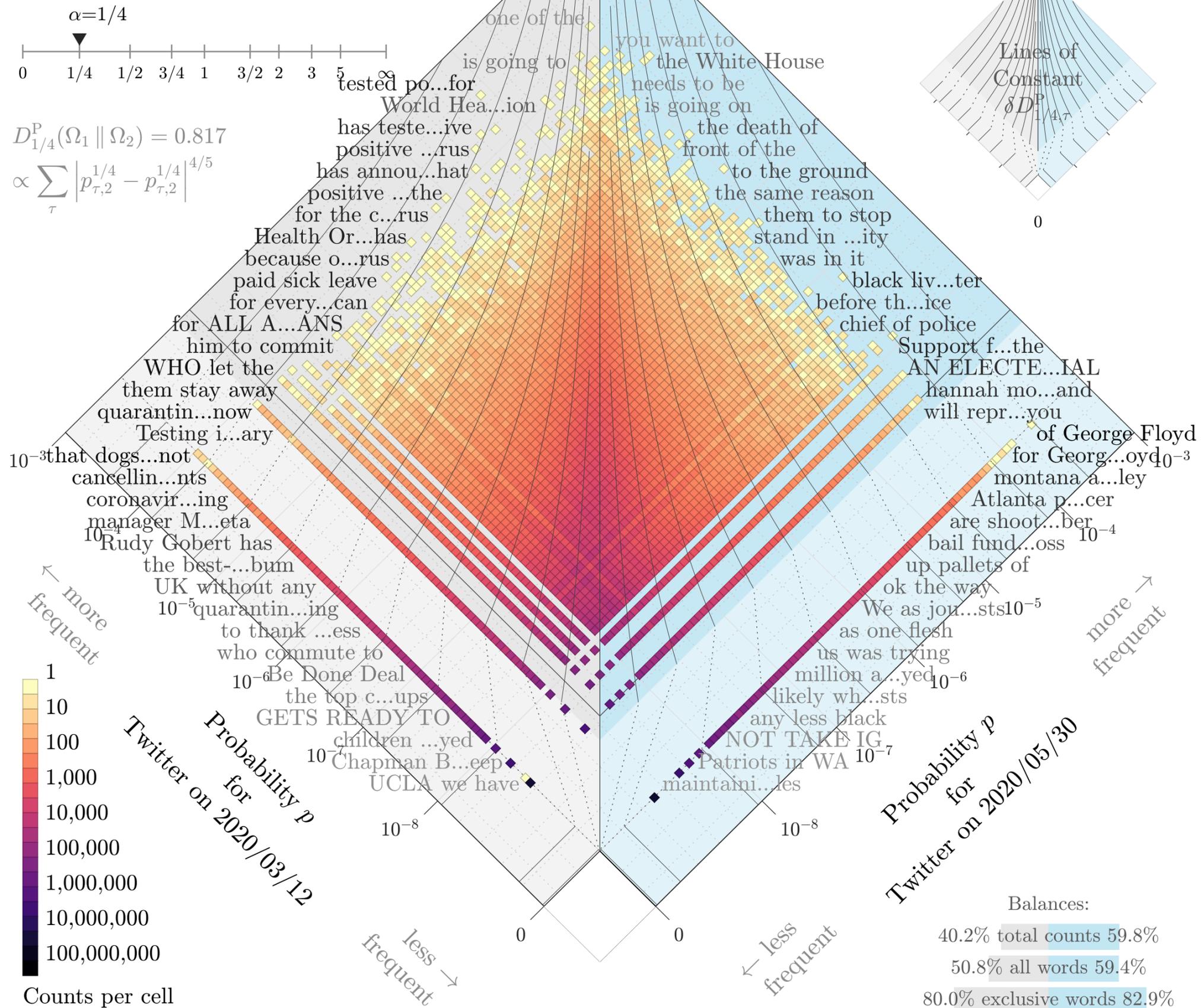
46.1%—53.9%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{1/4,\tau}^P (\times 10^{-5}\%)$

Instrument: Probability-Turbulence Divergence



Divergence contribution $\delta D_{1/4,\tau}^P (\times 10^{-5}\%)$						
1.5	1	0.5	0	0.5	1	1.5
40,753,560.5	⇒	1				of George Floyd▷
40,753,560.5	⇒	7				community in Minneapolis▷
40,753,560.5	⇒	13				for George Floyd▷
			18	⇒	43,073,107	▷that dogs cannot
			20	⇒	43,073,107	▷announced that dogs
			23	⇒	43,073,107	▷dogs cannot contract
			24	⇒	43,073,107	▷Organization has an...ced
40,753,560.5	⇒	17				white vs black▷
40,753,560.5	⇒	18				not white vs▷
40,753,560.5	⇒	19				everybody vs racists▷
			36	⇒	43,073,107	▷now be released
			37	⇒	43,073,107	▷held in quarantine
			40	⇒	43,073,107	▷previously held in
			41	⇒	43,073,107	▷Dogs previously held
40,753,560.5	⇒	24				death of George▷
40,753,560.5	⇒	31				touchy topic if▷
687,095	⇒	6				black lives matter
3,040,697	⇒	15				Support from the
			78	⇒	43,073,107	▷Mitchell has tested
40,753,560.5	⇒	51				cops shutting down▷
40,753,560.5	⇒	52				see cops shutting▷
			88	⇒	43,073,107	▷testing free for
			39	⇒	20,724,096.5	quarantine can now
40,753,560.5	⇒	60				montana and miley▷
40,753,560.5	⇒	60				see hannah montana▷
40,753,560.5	⇒	62				kkk rallies is▷
40,753,560.5	⇒	63				down kkk rallies▷
40,753,560.5	⇒	64				shutting down kkk▷
			99	⇒	43,073,107	▷cancelling sporting...nts
			102	⇒	43,073,107	▷we cancelling sporting
			31	⇒	7,573,274	WHO let the
			124	⇒	43,073,107	▷Donovan Mitchell has
40,753,560.5	⇒	69				not all cops▷
			45	⇒	20,724,096.5	who normally feed
			46	⇒	20,724,096.5	tourists who normally
			38	⇒	5,047,145.5	in quarantine can
			47	⇒	20,724,096.5	normally feed them
			48.5	⇒	20,724,096.5	feed them stay
			51	⇒	20,724,096.5	food after tourists
			56	⇒	20,724,096.5	hungry monkeys swarm

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

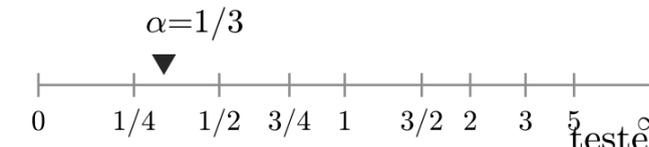
47.6%—52.4%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

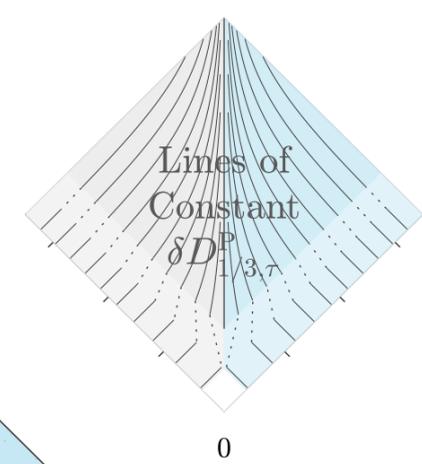
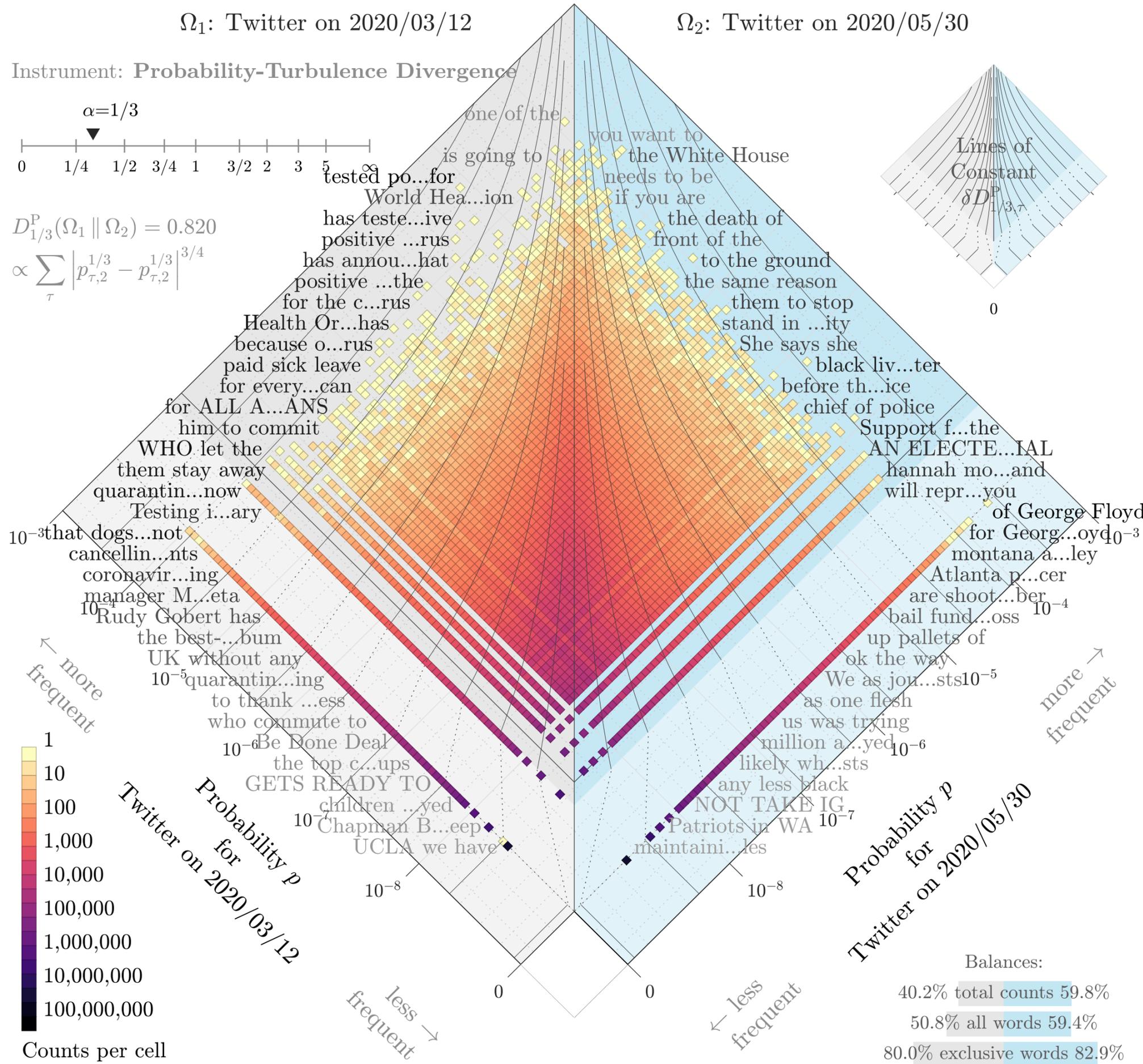
Divergence contribution $\delta D_{1/3,\tau}^P (\times 10^{-5}\%)$

Instrument: Probability-Turbulence Divergence



$$D_{1/3}^P(\Omega_1 \parallel \Omega_2) = 0.820$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{1/3} - p_{\tau,1}^{1/3} \right|^{3/4}$$



Rank	Word	Count
1	of George Floyd	40,753,560.5
2	community in Minneapolis	40,753,560.5
3	tested positive for	1=4,975.5
4	for George Floyd	40,753,560.5
5	black lives matter	687,095
6	that dogs cannot	18=43,073,107
7	announced that dogs	20=43,073,107
8	dogs cannot contract	23=43,073,107
9	Organization has an...	24=43,073,107
10	Support from the	3,040,697
11	white vs black	40,753,560.5
12	not white vs	40,753,560.5
13	everybody vs racists	40,753,560.5
14	now be released	36=43,073,107
15	held in quarantine	37=43,073,107
16	previously held in	40=43,073,107
17	Dogs previously held	41=43,073,107
18	death of George	40,753,560.5
19	WHO let the	31=7,573,274
20	quarantine can now	39=20,724,096.5
21	touchy topic if	40,753,560.5
22	in quarantine can	38=5,047,145.5
23	who normally feed	45=20,724,096.5
24	tourists who normally	46=20,724,096.5
25	normally feed them	47=20,724,096.5
26	feed them stay	48.5=20,724,096.5
27	food after tourists	51=20,724,096.5
28	hungry monkeys swarm	56=20,724,096.5
29	after tourists who	58=20,724,096.5
30	monkeys swarm across	59=20,724,096.5
31	over food after	60=20,724,096.5
32	swarm across Thai	61.5=20,724,096.5
33	across Thai street	61.5=20,724,096.5
34	Thai street as	63=20,724,096.5
35	rival gangs' fight	64.5=20,724,096.5
36	gangs' fight over	64.5=20,724,096.5
37	them stay away	48.5=7,573,274
38	of hungry monkeys	54=7,573,274
39	fight over food	57=7,573,274
40	has tested positive	3=11,879

Balances:

40.2% total counts 59.8%

50.8% all words 59.4%

80.0% exclusive words 82.9%

48.2%—51.8%

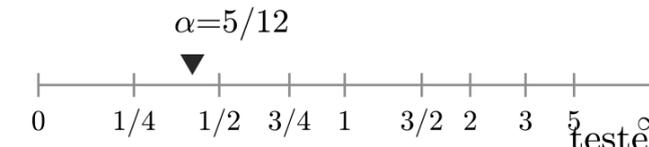
Counts per cell

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

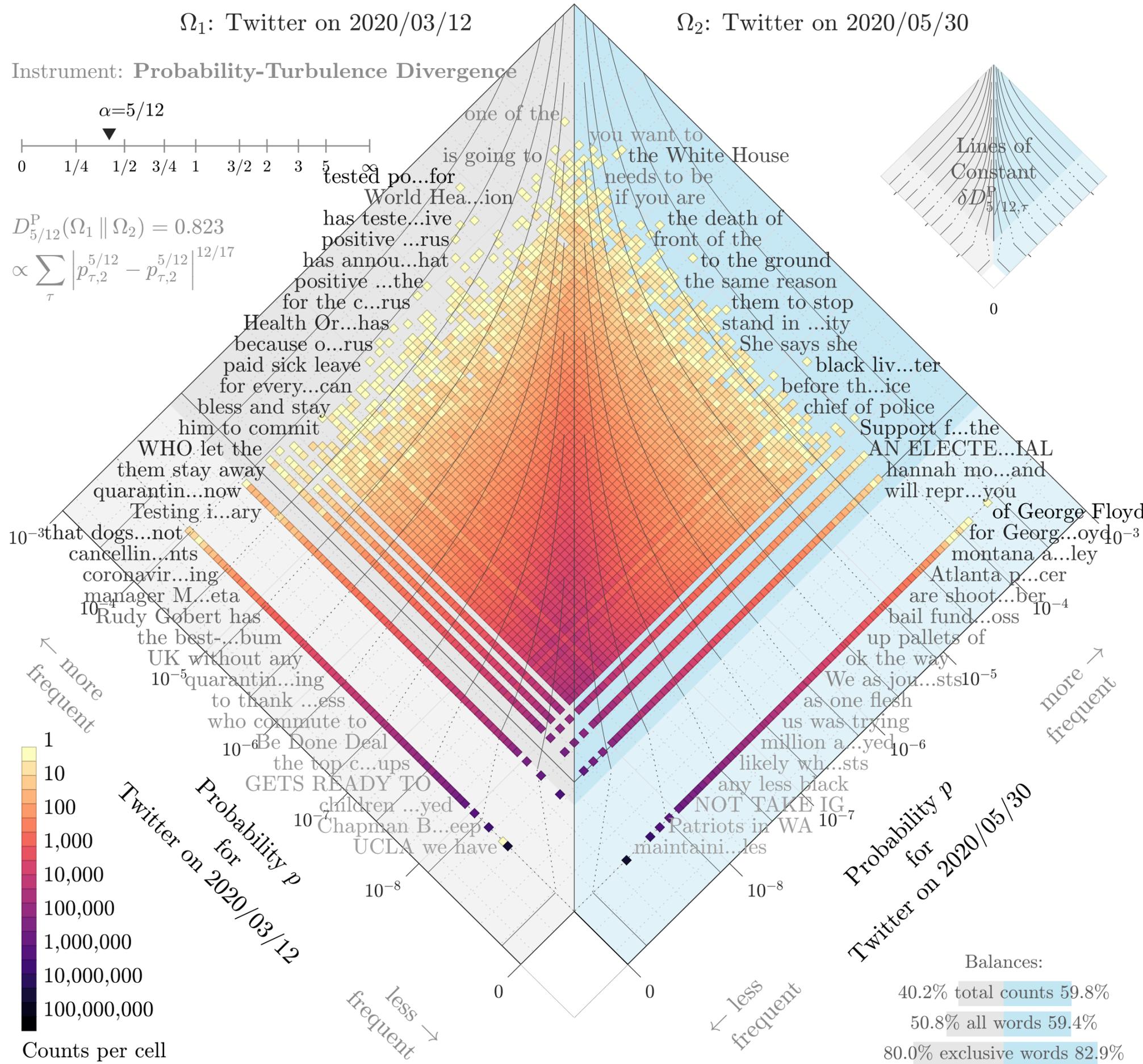
Divergence contribution $\delta D_{5/12,\tau}^P (\times 10^{-5}\%)$

Instrument: Probability-Turbulence Divergence



$$D_{5/12}^P(\Omega_1 \parallel \Omega_2) = 0.823$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{5/12} - p_{\tau,2} \right|^{12/17}$$



4	3	2	1	0	1	2	3	4
				40,753,560.5 \Rightarrow 1				
				tested positive for	1 \Rightarrow 4,975.5			
				40,753,560.5 \Rightarrow 7				
				community in Minneapolis \triangleright				
				687,095 \Rightarrow 6				
				black lives matter				
				40,753,560.5 \Rightarrow 13				
				for George Floyd \triangleright				
				has tested positive	3 \Rightarrow 11,879			
				3,040,697 \Rightarrow 15				
				Support from the				
				\triangleleft that dogs cannot	18 \Rightarrow 43,073,107			
				\triangleleft announced that dogs	20 \Rightarrow 43,073,107			
				\triangleleft dogs cannot contract	23 \Rightarrow 43,073,107			
				\triangleleft Organization has an...ced	24 \Rightarrow 43,073,107			
				positive for coronavirus	4 \Rightarrow 14,798			
				40,753,560.5 \Rightarrow 17				
				white vs black \triangleright				
				40,753,560.5 \Rightarrow 18				
				not white vs \triangleright				
				40,753,560.5 \Rightarrow 19				
				everybody vs racists \triangleright				
				\triangleleft now be released	36 \Rightarrow 43,073,107			
				\triangleleft held in quarantine	37 \Rightarrow 43,073,107			
				\triangleleft previously held in	40 \Rightarrow 43,073,107			
				\triangleleft Dogs previously held	41 \Rightarrow 43,073,107			
				WHO let the	31 \Rightarrow 7,573,274			
				because of coronavirus	16 \Rightarrow 277,424.5			
				for the coronavirus	9 \Rightarrow 78,795			
				quarantine can now	39 \Rightarrow 20,724,096.5			
				40,753,560.5 \Rightarrow 24				
				death of George \triangleright				
				in quarantine can	38 \Rightarrow 5,047,145.5			
				Health Organization has	21 \Rightarrow 172,568			
				paid sick leave	27 \Rightarrow 433,744.5			
				40,753,560.5 \Rightarrow 31				
				touchy topic if \triangleright				
				positive for the	10 \Rightarrow 53,912			
				who normally feed	45 \Rightarrow 20,724,096.5			
				tourists who normally	46 \Rightarrow 20,724,096.5			
				normally feed them	47 \Rightarrow 20,724,096.5			
				feed them stay	48.5 \Rightarrow 20,724,096.5			
				food after tourists	51 \Rightarrow 20,724,096.5			
				hungry monkeys swarm	56 \Rightarrow 20,724,096.5			
				after tourists who	58 \Rightarrow 20,724,096.5			
				monkeys swarm across	59 \Rightarrow 20,724,096.5			
				over food after	60 \Rightarrow 20,724,096.5			
				swarm across Thai	61.5 \Rightarrow 20,724,096.5			
				across Thai street	61.5 \Rightarrow 20,724,096.5			

Balances:

40.2% total counts 59.8%

50.8% all words 59.4%

80.0% exclusive words 82.9%

48.7%—51.3%

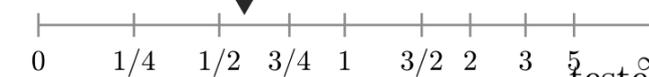
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{7/12,\tau}^P (\times 10^{-4}\%)$

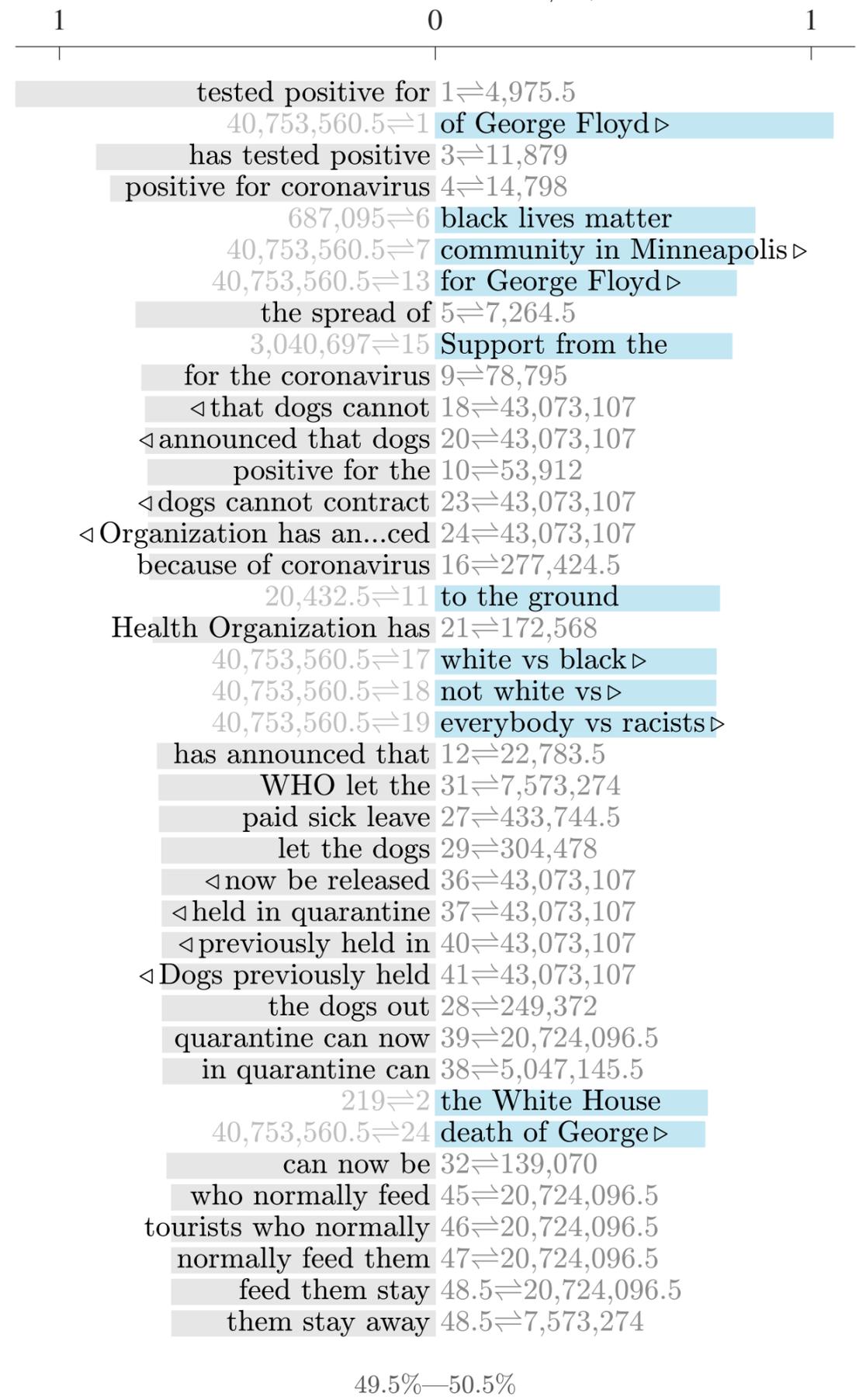
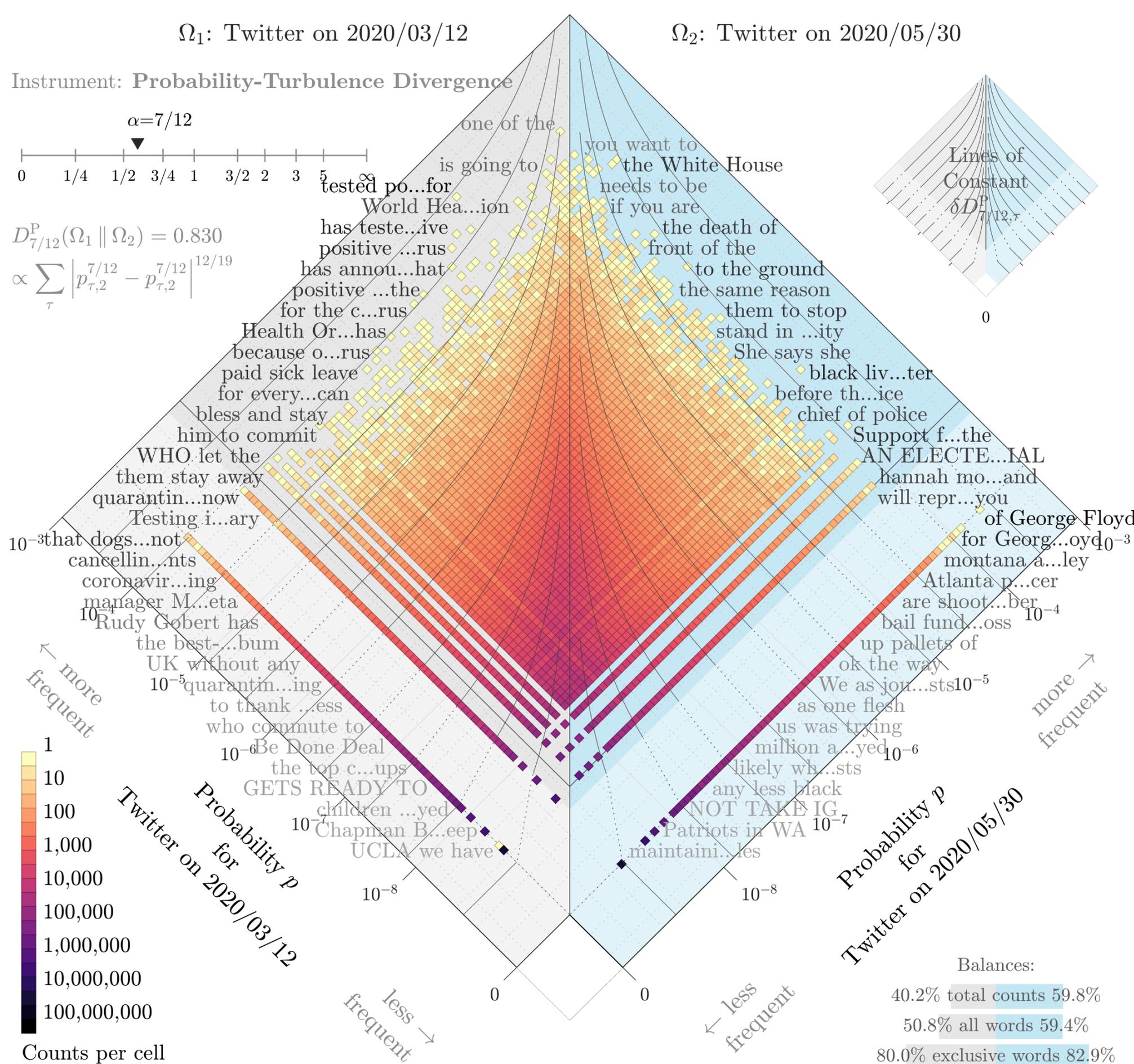
Instrument: Probability-Turbulence Divergence

$\alpha=7/12$



$$D_{7/12}^P(\Omega_1 \parallel \Omega_2) = 0.830$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{7/12} - p_{\tau,2}^{12/19} \right|^{12/19}$$



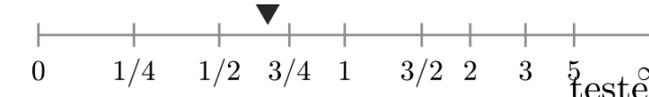
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{2/3,\tau}^P (\times 10^{-4}\%)$

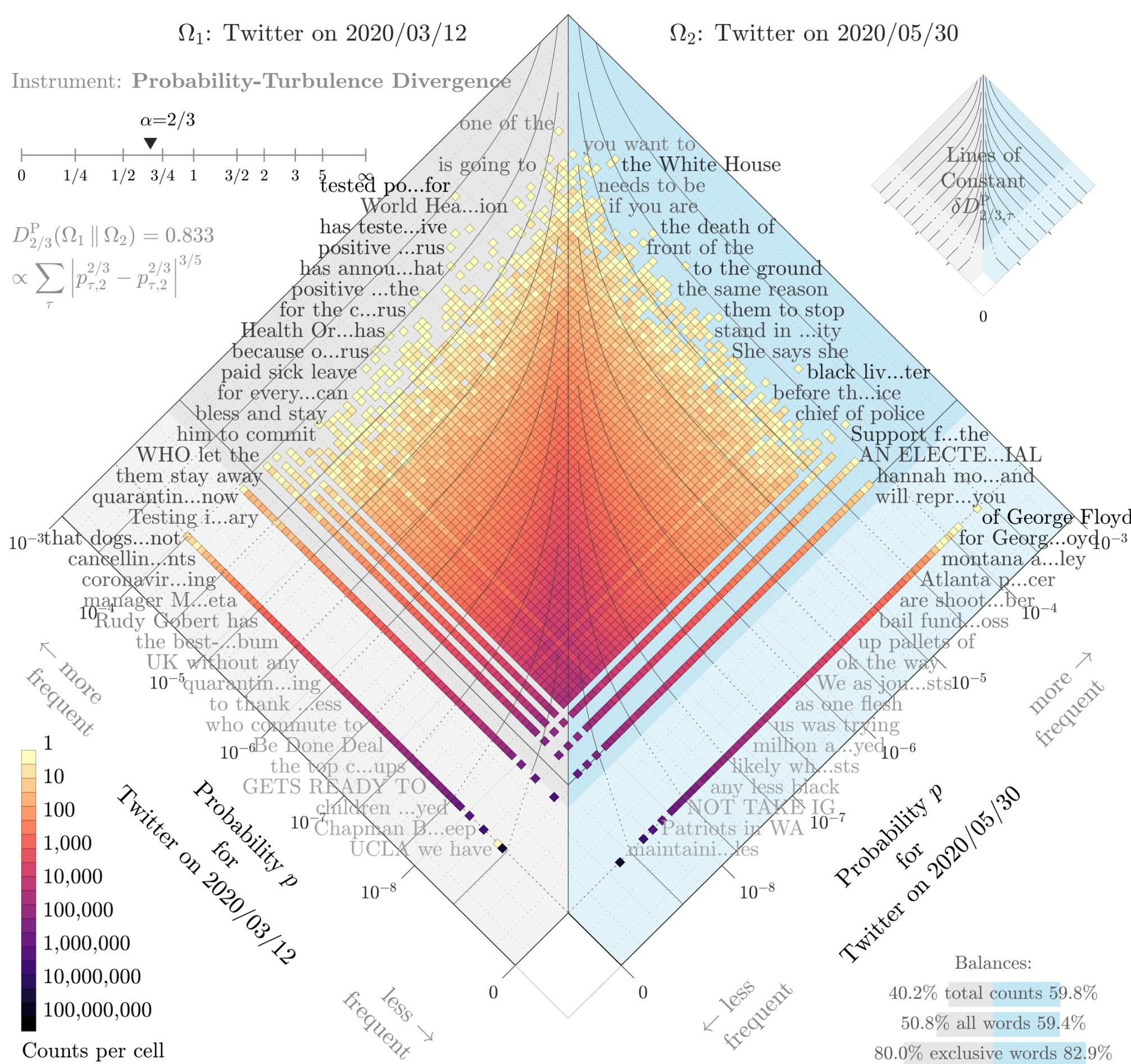
Instrument: Probability-Turbulence Divergence

$\alpha=2/3$



$D_{2/3}^P(\Omega_1 \parallel \Omega_2) = 0.833$

$\propto \sum_{\tau} |p_{\tau,2}^{2/3} - p_{\tau,1}^{2/3}|^{3/5}$



Rank	Phrase	Value
1	tested positive for	4,975.5
2	of George Floyd	40,753,560.5
3	has tested positive	11,879
4	positive for coronavirus	14,798
5	black lives matter	687,095
6	community in Minneapolis	40,753,560.5
7	the spread of	7,264.5
8	for George Floyd	40,753,560.5
9	for the coronavirus	78,795
10	Support from the	3,040,697
11	the White House	219
12	to the ground	20,432.5
13	that dogs cannot	43,073,107
14	announced that dogs	43,073,107
15	because of coronavirus	277,424.5
16	dogs cannot contract	43,073,107
17	Organization has an...	43,073,107
18	in front of	267
19	has announced that	22,783.5
20	Health Organization has	172,568
21	white vs black	40,753,560.5
22	not white vs	40,753,560.5
23	everybody vs racists	40,753,560.5
24	paid sick leave	433,744.5
25	WHO let the	7,573,274
26	let the dogs	304,478
27	the dogs out	249,372
28	the death of	5,326.5
29	now be released	43,073,107
30	held in quarantine	43,073,107
31	previously held in	43,073,107
32	Dogs previously held	43,073,107
33	quarantine can now	20,724,096.5
34	in quarantine can	5,047,145.5
35	can now be	139,070
36	death of George	40,753,560.5
37	them to stop	80,204
38	who normally feed	20,724,096.5
39	tourists who normally	20,724,096.5

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

49.9%—50.1%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

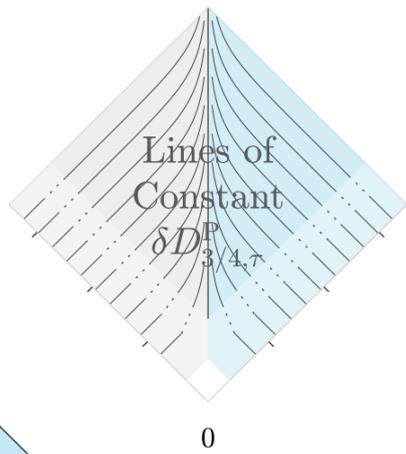
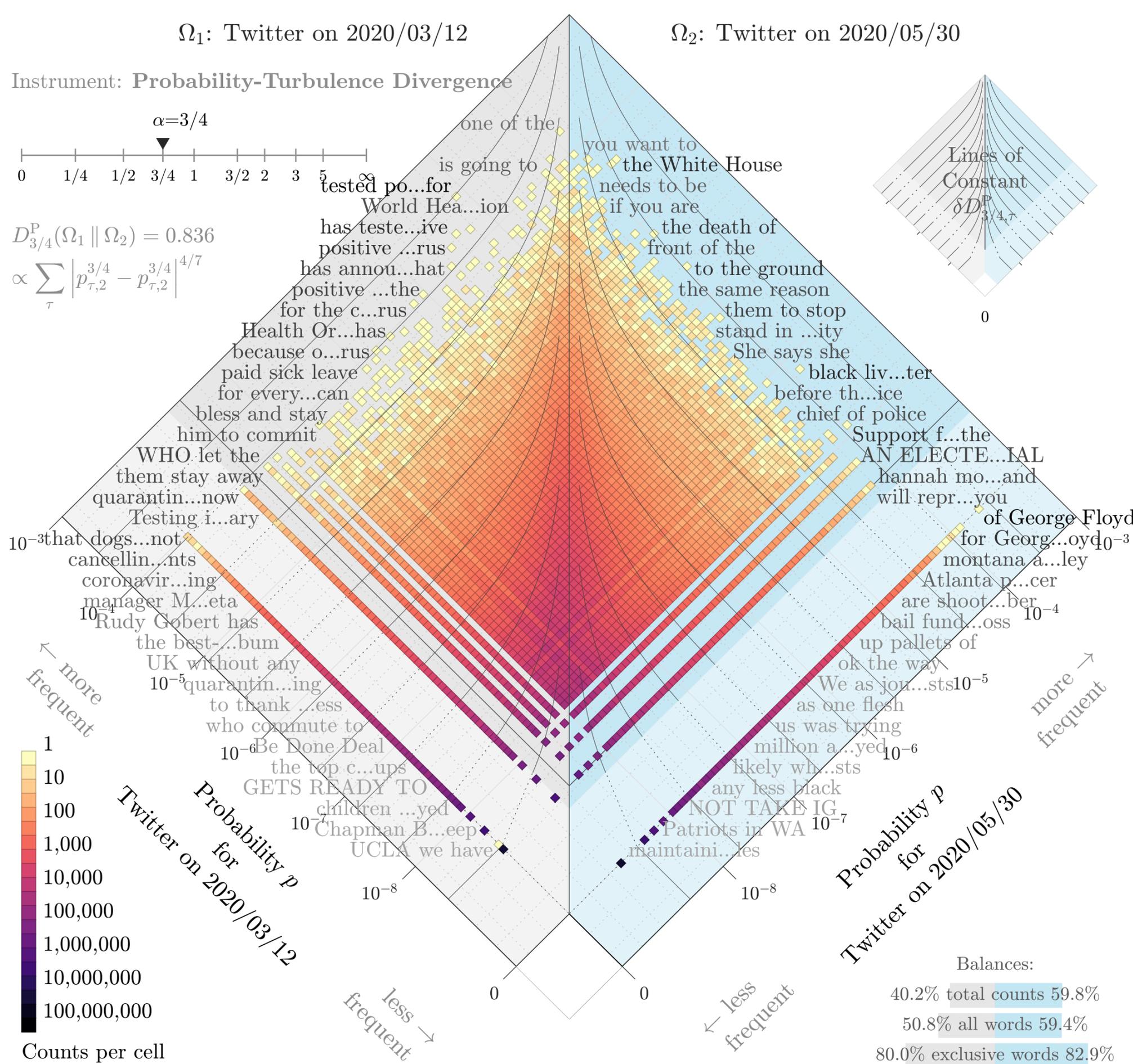
Divergence contribution $\delta D_{3/4,\tau}^P (\times 10^{-4}\%)$

Instrument: **Probability-Turbulence Divergence**



$$D_{3/4}^P(\Omega_1 \parallel \Omega_2) = 0.836$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{3/4} - p_{\tau,1}^{3/4} \right|^{4/7}$$



Rank	Word	Value
1	tested positive for	4,975.5
2	of George Floyd	40,753,560.5
3	has tested positive	11,879
4	positive for coronavirus	14,798
5	black lives matter	687,095
6	the spread of	7,264.5
7	community in Minneapolis	40,753,560.5
8	the White House	219
9	in front of	267
10	for George Floyd	40,753,560.5
11	for the coronavirus	9=78,795
12	Support from the	3,040,697
13	to the ground	20,432.5
14	positive for the	10=53,912
15	has announced that	12=22,783.5
16	that dogs cannot	18=43,073,107
17	announced that dogs	20=43,073,107
18	because of coronavirus	16=277,424.5
19	dogs cannot contract	23=43,073,107
20	Organization has an...	24=43,073,107
21	Health Organization has	21=172,568
22	the death of	5,326.5
23	white vs black	40,753,560.5
24	not white vs	40,753,560.5
25	everybody vs racists	40,753,560.5
26	paid sick leave	27=433,744.5
27	let the dogs	29=304,478
28	WHO let the	31=7,573,274
29	the dogs out	28=249,372
30	can now be	32=139,070
31	now be released	36=43,073,107
32	held in quarantine	37=43,073,107
33	previously held in	40=43,073,107
34	Dogs previously held	41=43,073,107
35	quarantine can now	39=20,724,096.5
36	in quarantine can	38=5,047,145.5
37	them to stop	80,204
38	death of George	40,753,560.5
39	of the virus	26=16,058.5
40	To be clear	34=32,863

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{5/6,\tau}^P (\times 10^{-4}\%)$

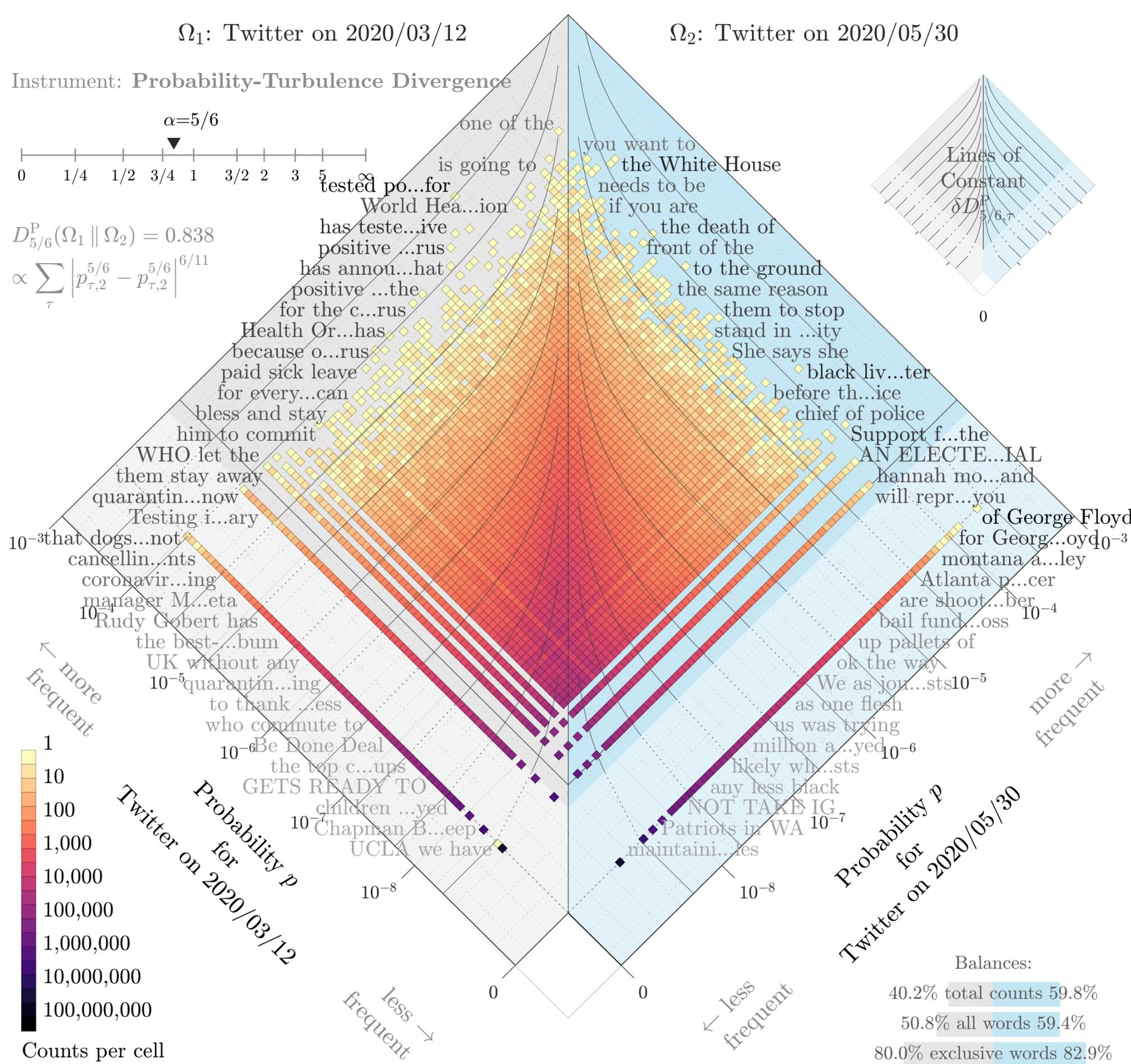
Instrument: Probability-Turbulence Divergence

$\alpha=5/6$



$$D_{5/6}^P(\Omega_1 \parallel \Omega_2) = 0.838$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{5/6} - p_{\tau,2}^{5/6} \right|^{6/11}$$



2	1	0	1	2
tested positive for	1	\Rightarrow	4,975.5	
40,753,560.5	\Rightarrow	1	of George Floyd	
has tested positive	3	\Rightarrow	11,879	
positive for coronavirus	4	\Rightarrow	14,798	
219	\Rightarrow	2	the White House	
the spread of	5	\Rightarrow	7,264.5	
687,095	\Rightarrow	6	black lives matter	
40,753,560.5	\Rightarrow	7	community in Minneapolis	
267	\Rightarrow	3	in front of	
for the coronavirus	9	\Rightarrow	78,795	
40,753,560.5	\Rightarrow	13	for George Floyd	
20,432.5	\Rightarrow	11	to the ground	
3,040,697	\Rightarrow	15	Support from the	
positive for the	10	\Rightarrow	53,912	
has announced that	12	\Rightarrow	22,783.5	
that dogs cannot	18	\Rightarrow	43,073,107	
announced that dogs	20	\Rightarrow	43,073,107	
because of coronavirus	16	\Rightarrow	277,424.5	
5,326.5	\Rightarrow	12	the death of	
Health Organization has	21	\Rightarrow	172,568	
dogs cannot contract	23	\Rightarrow	43,073,107	
Organization has an...	24	\Rightarrow	43,073,107	
40,753,560.5	\Rightarrow	17	white vs black	
40,753,560.5	\Rightarrow	18	not white vs	
40,753,560.5	\Rightarrow	19	everybody vs racists	
paid sick leave	27	\Rightarrow	433,744.5	
let the dogs	29	\Rightarrow	304,478	
the dogs out	28	\Rightarrow	249,372	
WHO let the	31	\Rightarrow	7,573,274	
can now be	32	\Rightarrow	139,070	
World Health Organization	8	\Rightarrow	1,420	
now be released	36	\Rightarrow	43,073,107	
held in quarantine	37	\Rightarrow	43,073,107	
previously held in	40	\Rightarrow	43,073,107	
quarantine can now	39	\Rightarrow	20,724,096.5	
in quarantine can	38	\Rightarrow	5,047,145.5	
Dogs previously held	41	\Rightarrow	43,073,107	
of the virus	26	\Rightarrow	16,058.5	
80,204	\Rightarrow	23	them to stop	
To be clear	34	\Rightarrow	32,863	

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

50.4%—49.6%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{1,\tau}^P (\times 10^{-4}\%)$

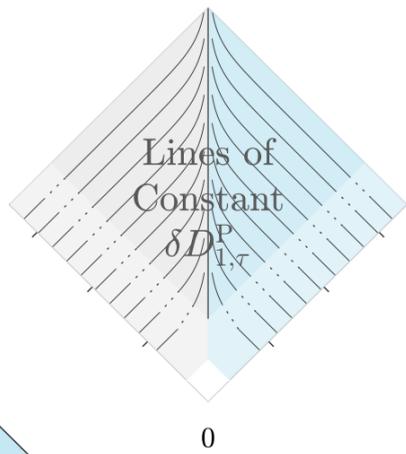
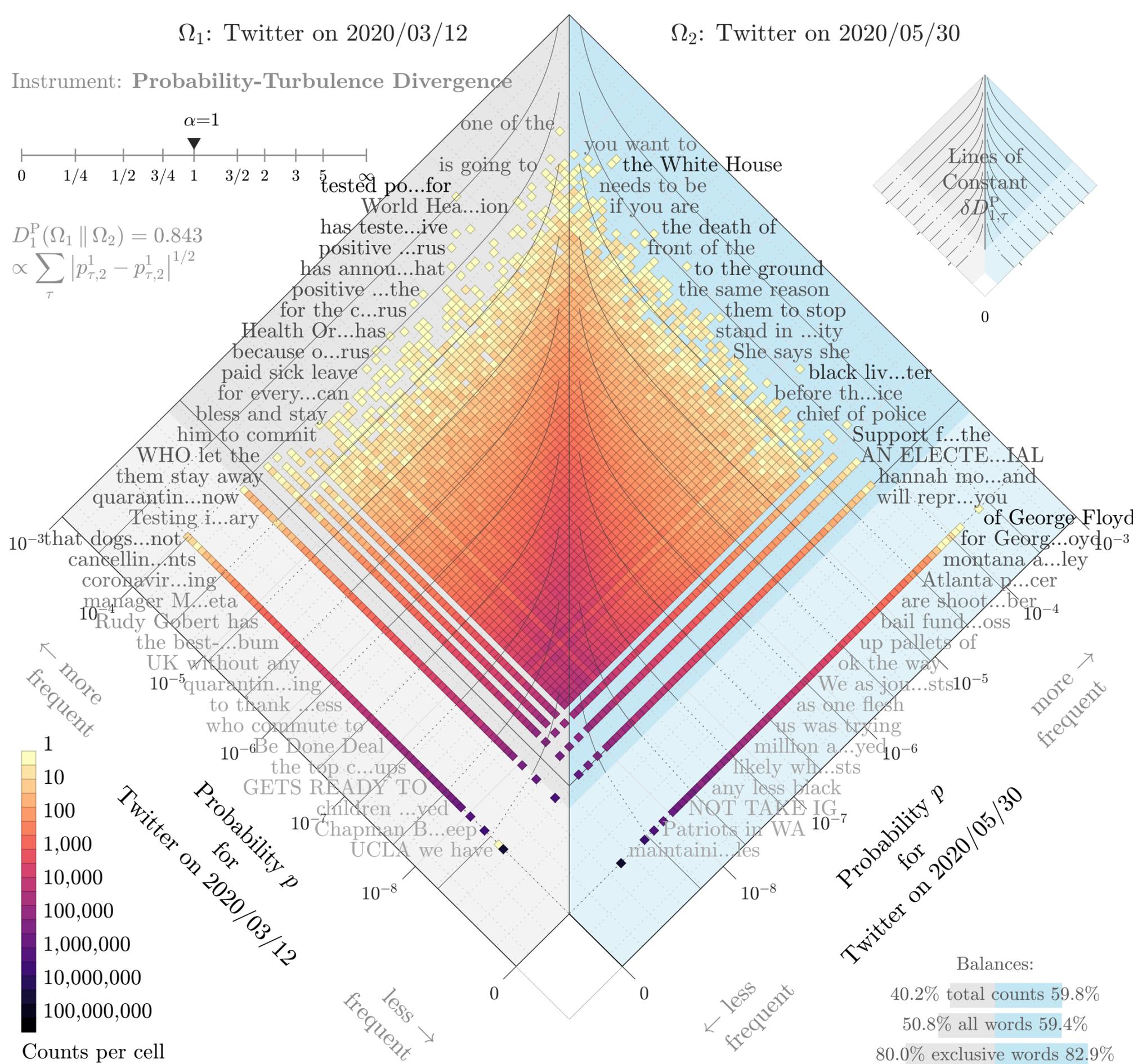
Instrument: **Probability-Turbulence Divergence**

$\alpha=1$



$$D_1^P(\Omega_1 \parallel \Omega_2) = 0.843$$

$$\propto \sum_{\tau} |p_{\tau,2}^1 - p_{\tau,2}^2|^{1/2}$$



Rank	Word	Contribution
1	tested positive for	4,975.5
2	of George Floyd	40,753,560.5
3	has tested positive	11,879
4	the White House	219
5	positive for coronavirus	14,798
6	in front of	267
7	black lives matter	687,095
8	community in Minneapolis	40,753,560.5
9	for the coronavirus	78,795
10	to the ground	20,432.5
11	for George Floyd	40,753,560.5
12	positive for the	53,912
13	Support from the	3,040,697
14	has announced that	22,783.5
15	the death of	5,326.5
16	because of coronavirus	277,424.5
17	white vs black	40,753,560.5
18	not white vs	40,753,560.5
19	everybody vs racists	40,753,560.5
20	paid sick leave	433,744.5
21	let the dogs	304,478
22	the dogs out	249,372
23	WHO let the	7,573,274
24	of the virus	16,058.5
25	can now be	139,070
26	now be released	43,073,107
27	held in quarantine	43,073,107
28	in quarantine can	5,047,145.5
29	quarantine can now	20,724,096.5
30	previously held in	43,073,107
31	Dogs previously held	43,073,107
32	them to stop	80,204
33	To be clear	32,863

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

50.8%—49.2%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{13/12,\tau}^P (\times 10^{-4}\%)$

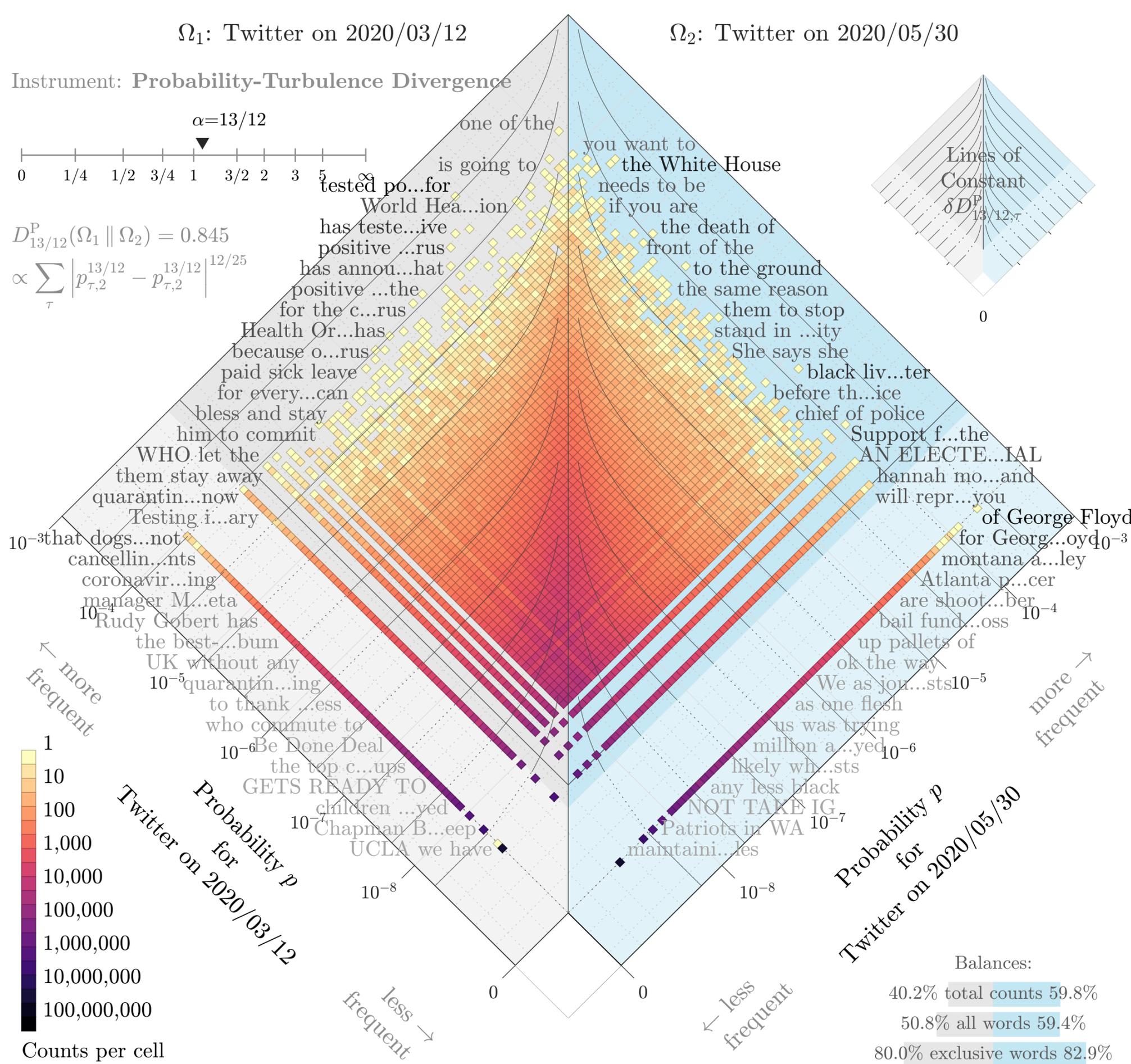
Instrument: Probability-Turbulence Divergence

$\alpha=13/12$



$$D_{13/12}^P(\Omega_1 \parallel \Omega_2) = 0.845$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{13/12} - p_{\tau,2} \right|^{12/25}$$



	5	0	5
tested positive for	1	\Rightarrow 4,975.5	
of George Floyd		1	\Rightarrow 40,753,560.5
has tested positive	3	\Rightarrow 11,879	
the White House		2	\Rightarrow 219
positive for coronavirus	4	\Rightarrow 14,798	
in front of		3	\Rightarrow 267
the spread of	5	\Rightarrow 7,264.5	
black lives matter		6	\Rightarrow 687,095
community in Minneapolis		7	\Rightarrow 40,753,560.5
to the ground		11	\Rightarrow 20,432.5
for the coronavirus	9	\Rightarrow 78,795	
for George Floyd		13	\Rightarrow 40,753,560.5
positive for the	10	\Rightarrow 53,912	
Support from the		15	\Rightarrow 3,040,697
the death of		12	\Rightarrow 5,326.5
has announced that	12	\Rightarrow 22,783.5	
World Health Organization	8	\Rightarrow 1,420	
because of coronavirus	16	\Rightarrow 277,424.5	
that dogs cannot	18	\Rightarrow 43,073,107	
announced that dogs	20	\Rightarrow 43,073,107	
Health Organization has	21	\Rightarrow 172,568	
dogs cannot contract	23	\Rightarrow 43,073,107	
Organization has announced	24	\Rightarrow 43,073,107	
white vs black		17	\Rightarrow 40,753,560.5
not white vs		18	\Rightarrow 40,753,560.5
everybody vs racists		19	\Rightarrow 40,753,560.5
paid sick leave	27	\Rightarrow 433,744.5	
the dogs out	28	\Rightarrow 249,372	
let the dogs	29	\Rightarrow 304,478	
of the virus	26	\Rightarrow 16,058.5	
WHO let the	31	\Rightarrow 7,573,274	
can now be	32	\Rightarrow 139,070	
To be clear	34	\Rightarrow 32,863	
now be released	36	\Rightarrow 43,073,107	
them to stop		23	\Rightarrow 80,204
held in quarantine	37	\Rightarrow 43,073,107	
in quarantine can	38	\Rightarrow 5,047,145.5	
quarantine can now	39	\Rightarrow 20,724,096.5	
previously held in	40	\Rightarrow 43,073,107	
Dogs previously held	41	\Rightarrow 43,073,107	

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

50.9%—49.1%

Counts per cell

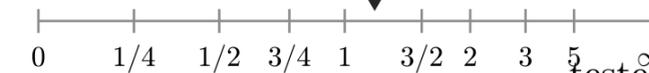
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{7/6,\tau}^P (\times 10^{-4}\%)$

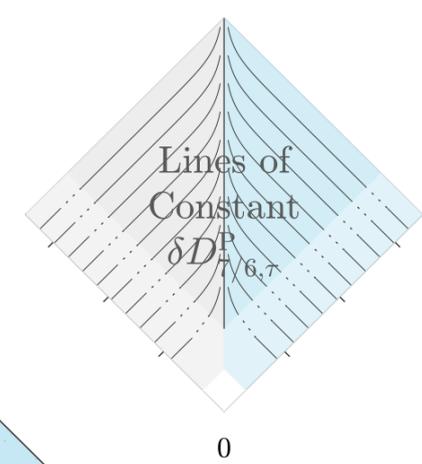
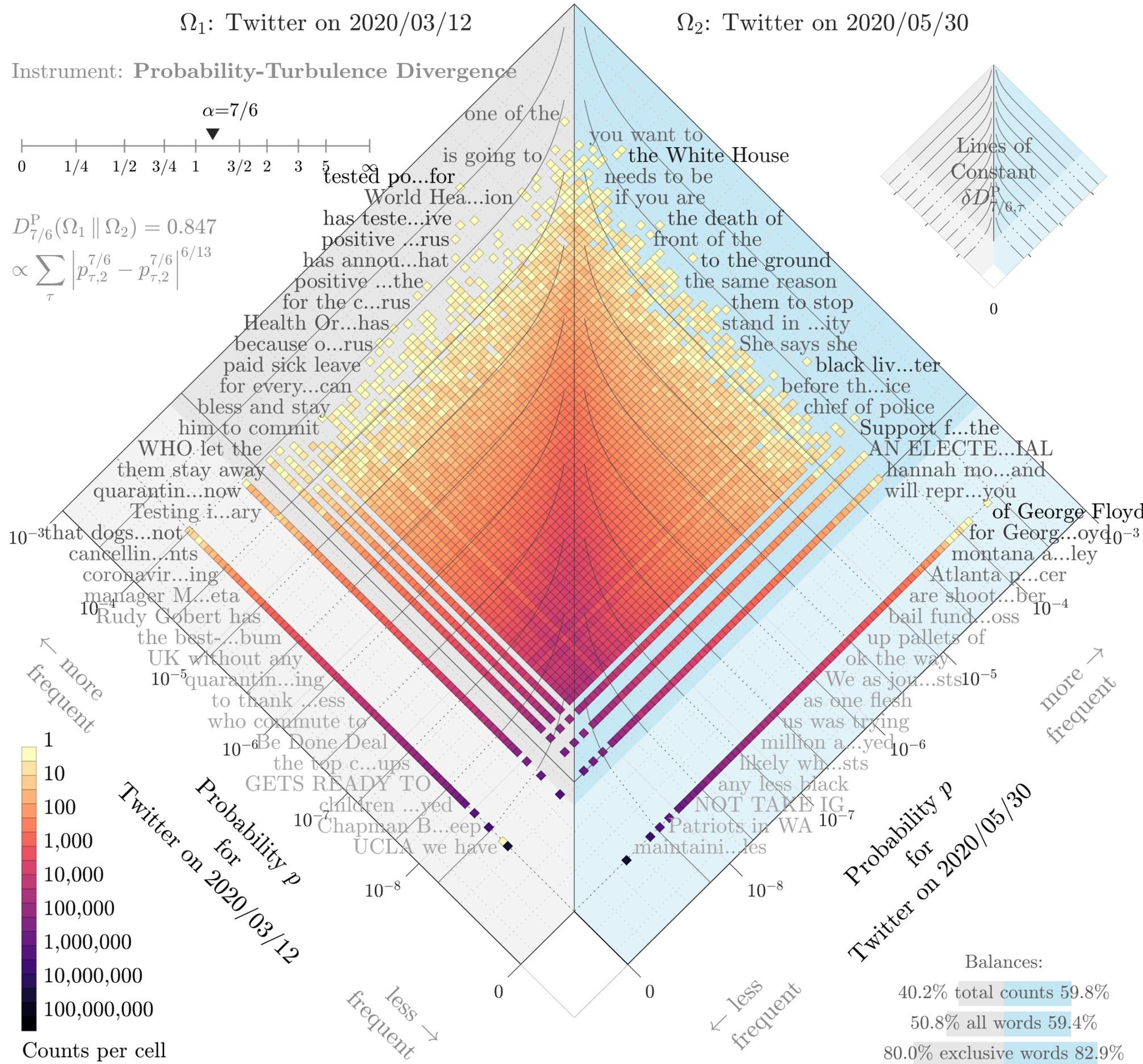
Instrument: Probability-Turbulence Divergence

$\alpha=7/6$



$D_{7/6}^P(\Omega_1 \parallel \Omega_2) = 0.847$

$\propto \sum_{\tau} |p_{\tau,2}^{7/6} - p_{\tau,1}^{7/6}|^{6/13}$



Divergence contribution $\delta D_{7/6,\tau}^P (\times 10^{-4}\%)$						
6	4	2	0	2	4	6
tested positive for	1	\Rightarrow	4,975.5			
40,753,560.5	\Rightarrow	1	of George Floyd			
has tested positive	3	\Rightarrow	11,879			
219	\Rightarrow	2	the White House			
267	\Rightarrow	3	in front of			
positive for coronavirus	4	\Rightarrow	14,798			
the spread of	5	\Rightarrow	7,264.5			
687,095	\Rightarrow	6	black lives matter			
40,753,560.5	\Rightarrow	7	community in Minneapolis			
20,432.5	\Rightarrow	11	to the ground			
for the coronavirus	9	\Rightarrow	78,795			
40,753,560.5	\Rightarrow	13	for George Floyd			
positive for the	10	\Rightarrow	53,912			
5,326.5	\Rightarrow	12	the death of			
3,040,697	\Rightarrow	15	Support from the			
has announced that	12	\Rightarrow	22,783.5			
World Health Organization	8	\Rightarrow	1,420			
because of coronavirus	16	\Rightarrow	277,424.5			
<that dogs cannot	18	\Rightarrow	43,073,107			
<announced that dogs	20	\Rightarrow	43,073,107			
Health Organization has	21	\Rightarrow	172,568			
<dogs cannot contract	23	\Rightarrow	43,073,107			
<Organization has an...ced	24	\Rightarrow	43,073,107			
40,753,560.5	\Rightarrow	17	white vs black			
40,753,560.5	\Rightarrow	18	not white vs			
40,753,560.5	\Rightarrow	19	everybody vs racists			
paid sick leave	27	\Rightarrow	433,744.5			
the dogs out	28	\Rightarrow	249,372			
let the dogs	29	\Rightarrow	304,478			
of the virus	26	\Rightarrow	16,058.5			
WHO let the	31	\Rightarrow	7,573,274			
can now be	32	\Rightarrow	139,070			
due to the	11	\Rightarrow	603			
To be clear	34	\Rightarrow	32,863			
80,204	\Rightarrow	23	them to stop			
<now be released	36	\Rightarrow	43,073,107			
<held in quarantine	37	\Rightarrow	43,073,107			
in quarantine can	38	\Rightarrow	5,047,145.5			
quarantine can now	39	\Rightarrow	20,724,096.5			
<previously held in	40	\Rightarrow	43,073,107			
Balances:						
40.2%	total counts	59.8%				
50.8%	all words	59.4%				
80.0%	exclusive words	82.9%				
			51.1%—48.9%			

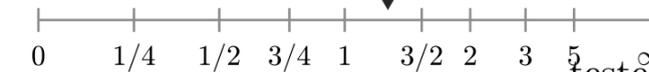
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{5/4,\tau}^P (\times 10^{-4}\%)$

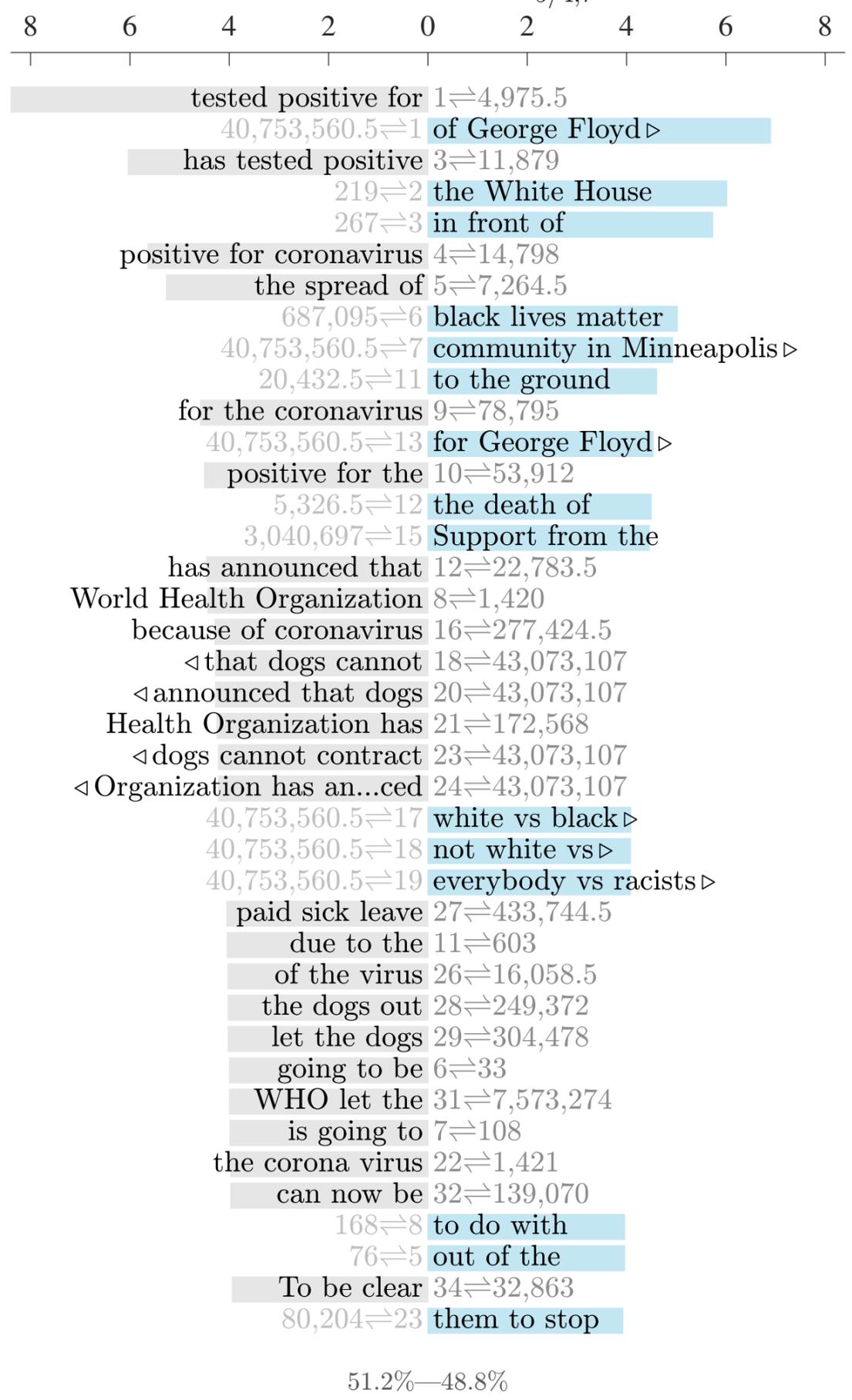
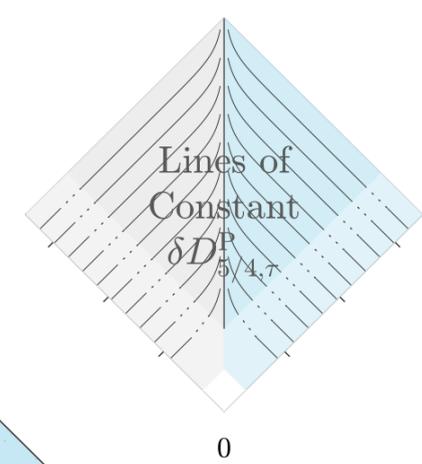
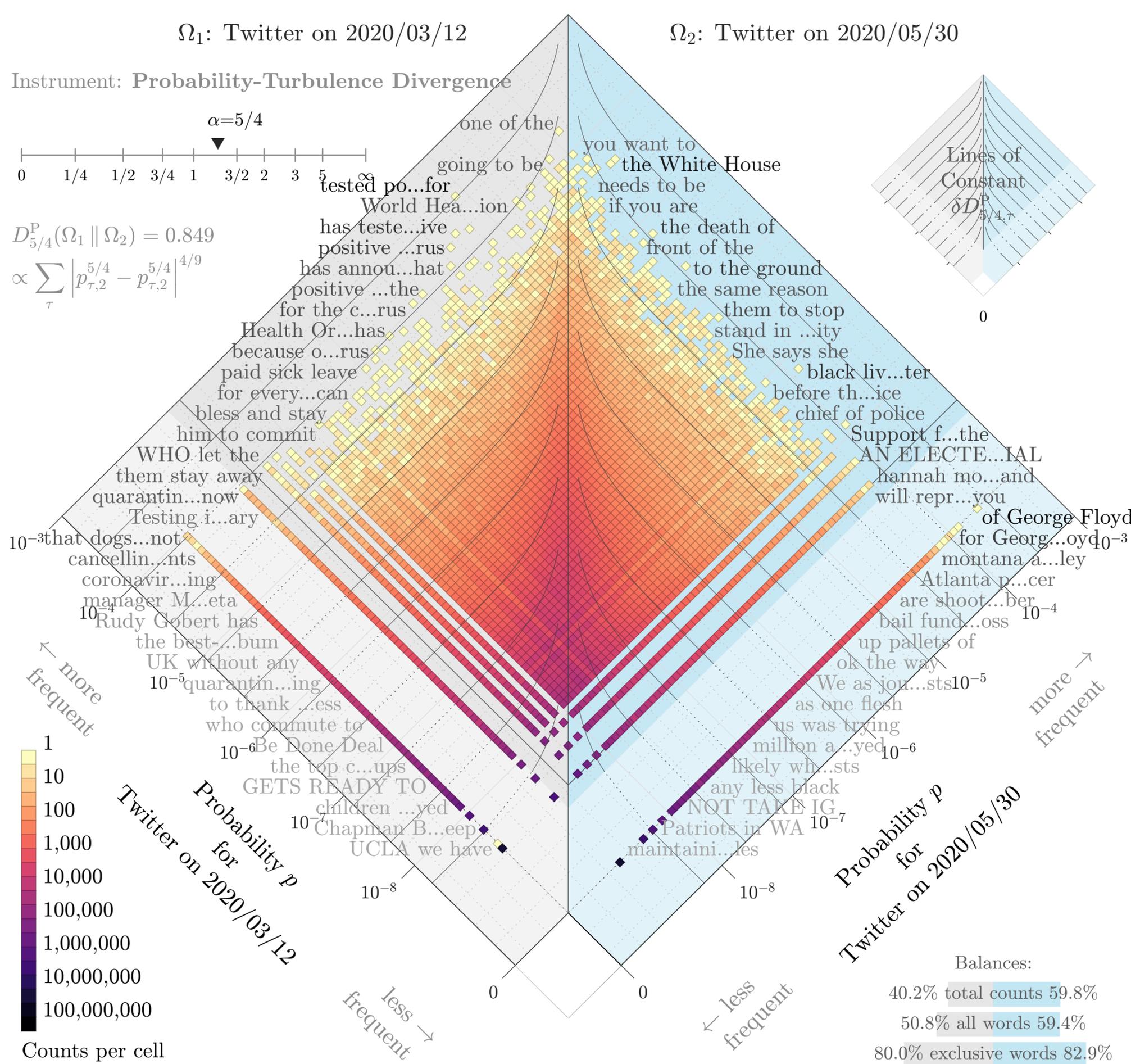
Instrument: Probability-Turbulence Divergence

$\alpha=5/4$



$$D_{5/4}^P(\Omega_1 \parallel \Omega_2) = 0.849$$

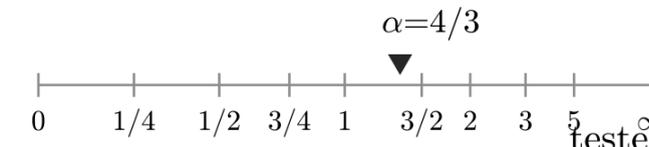
$$\propto \sum_{\tau} \left| p_{\tau,2}^{5/4} - p_{\tau,1}^{5/4} \right|^{4/9}$$



Ω_1 : Twitter on 2020/03/12

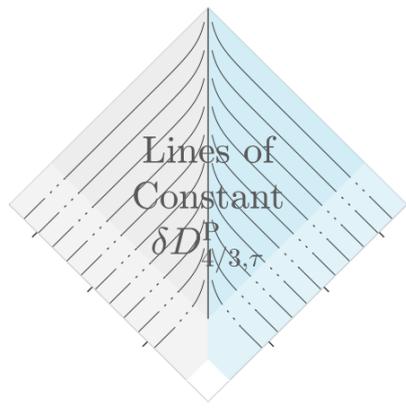
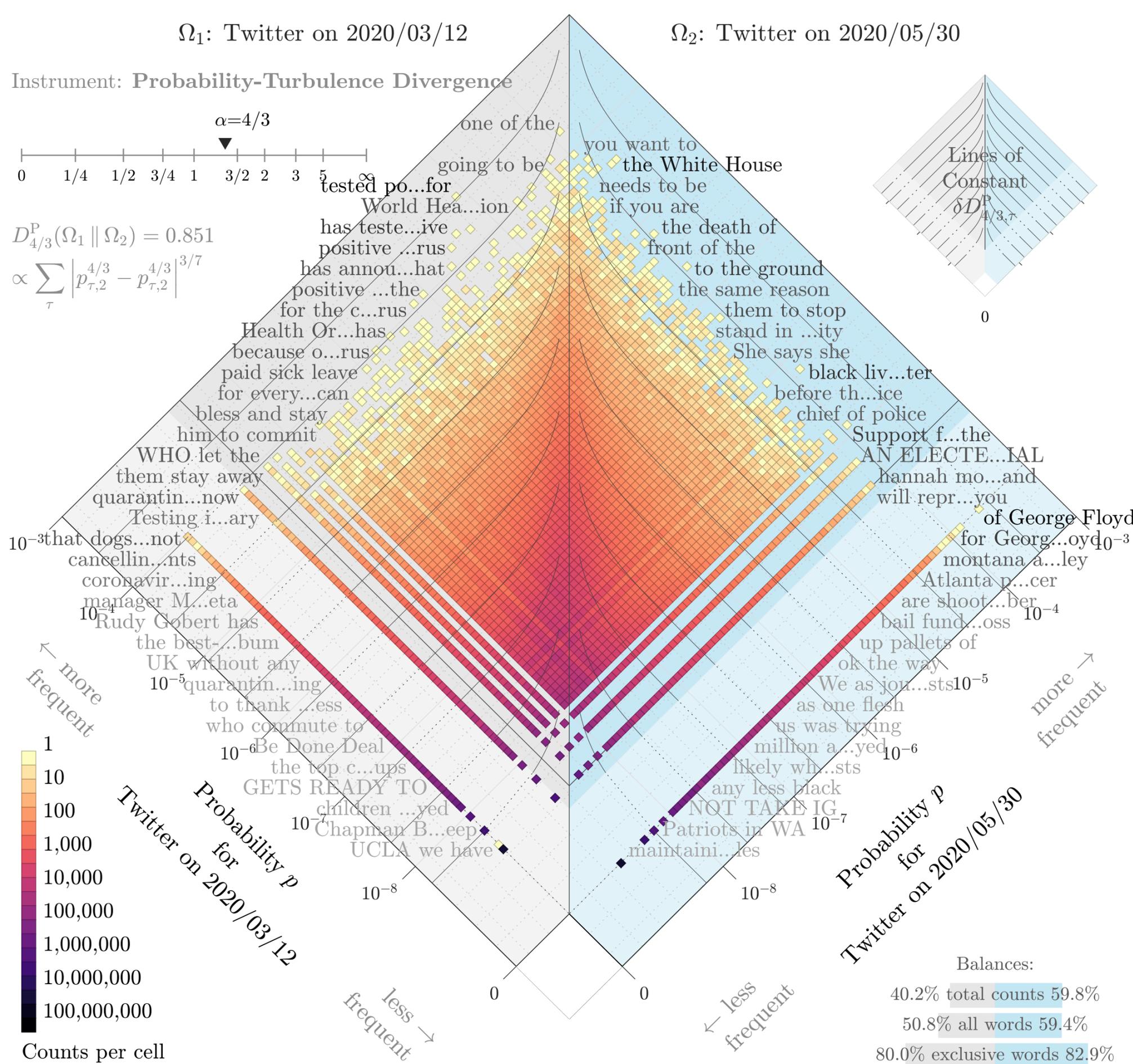
Ω_2 : Twitter on 2020/05/30

Instrument: **Probability-Turbulence Divergence**



$$D_{4/3}^P(\Omega_1 \parallel \Omega_2) = 0.851$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{4/3} - p_{\tau,1}^{4/3} \right|^{3/7}$$



Divergence contribution $\delta D_{4/3,\tau}^P (\times 10^{-4}\%)$



tested positive for	1	⇒	4,975.5
of George Floyd	2	⇒	40,753,560.5
the White House	3	⇒	219
has tested positive	4	⇒	11,879
in front of	5	⇒	267
positive for coronavirus	6	⇒	14,798
the spread of	7	⇒	7,264.5
black lives matter	8	⇒	687,095
community in Minneapolis	9	⇒	40,753,560.5
to the ground	10	⇒	20,432.5
for the coronavirus	11	⇒	78,795
for George Floyd	12	⇒	40,753,560.5
the death of	13	⇒	5,326.5
positive for the	14	⇒	53,912
World Health Organization	15	⇒	8
has announced that	16	⇒	22,783.5
Support from the	17	⇒	3,040,697
because of coronavirus	18	⇒	277,424.5
that dogs cannot	19	⇒	43,073,107
announced that dogs	20	⇒	43,073,107
Health Organization has	21	⇒	172,568
dogs cannot contract	22	⇒	43,073,107
Organization has an...	23	⇒	43,073,107
going to be	24	⇒	33
due to the	25	⇒	603
is going to	26	⇒	108
out of the	27	⇒	76
white vs black	28	⇒	40,753,560.5
not white vs	29	⇒	40,753,560.5
everybody vs racists	30	⇒	40,753,560.5
to do with	31	⇒	168
paid sick leave	32	⇒	433,744.5
of the virus	33	⇒	26
the corona virus	34	⇒	16,058.5
the dogs out	35	⇒	1,421
let the dogs	36	⇒	249,372
WHO let the	37	⇒	304,478
can now be	38	⇒	7,573,274
part of the	39	⇒	32
To be clear	40	⇒	139,070

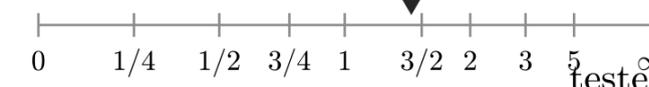
51.3%—48.7%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

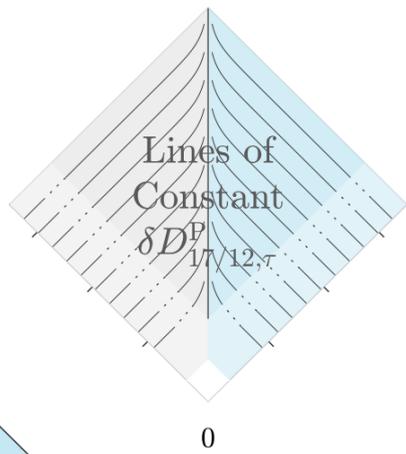
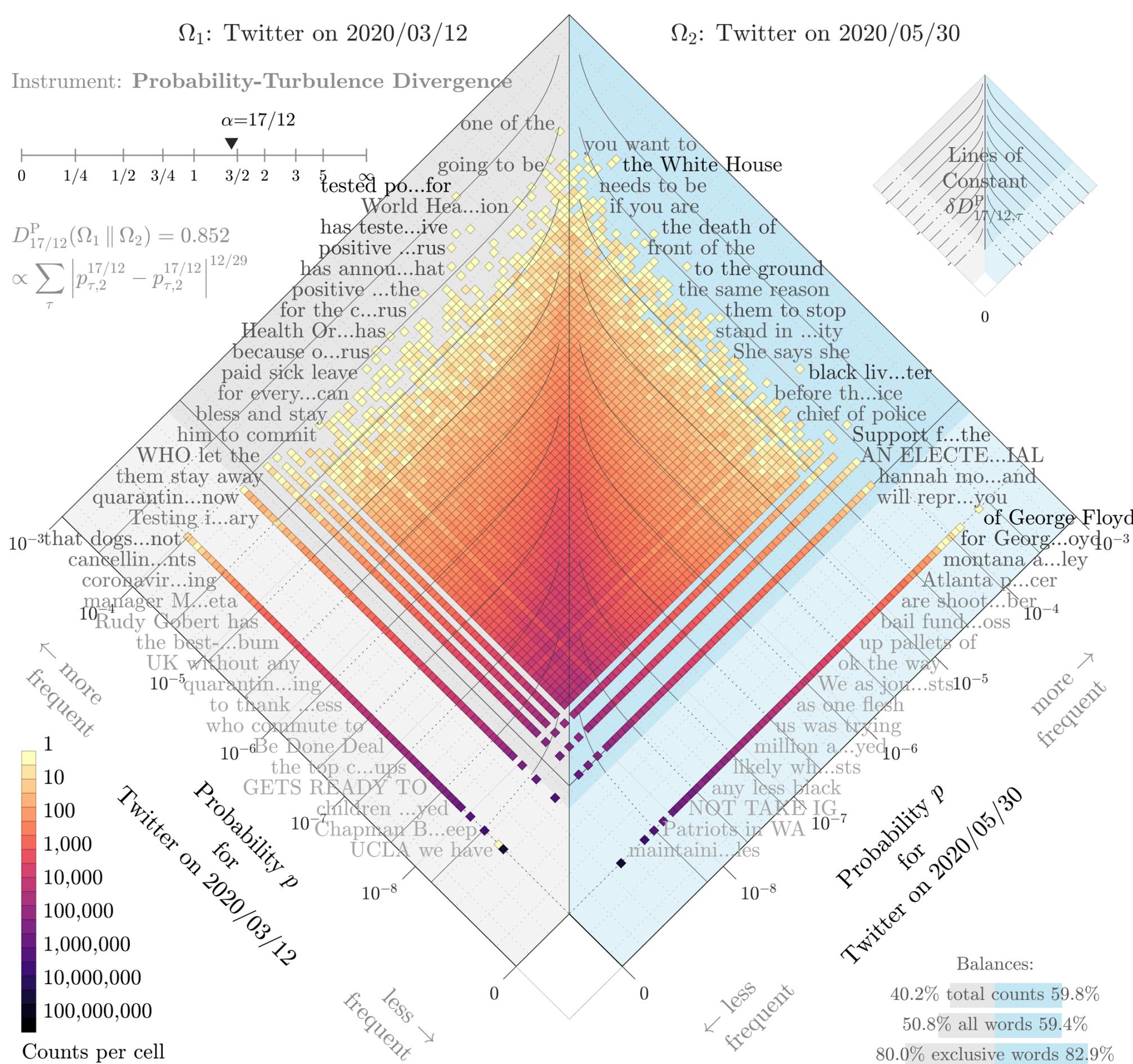
Instrument: Probability-Turbulence Divergence

$\alpha=17/12$

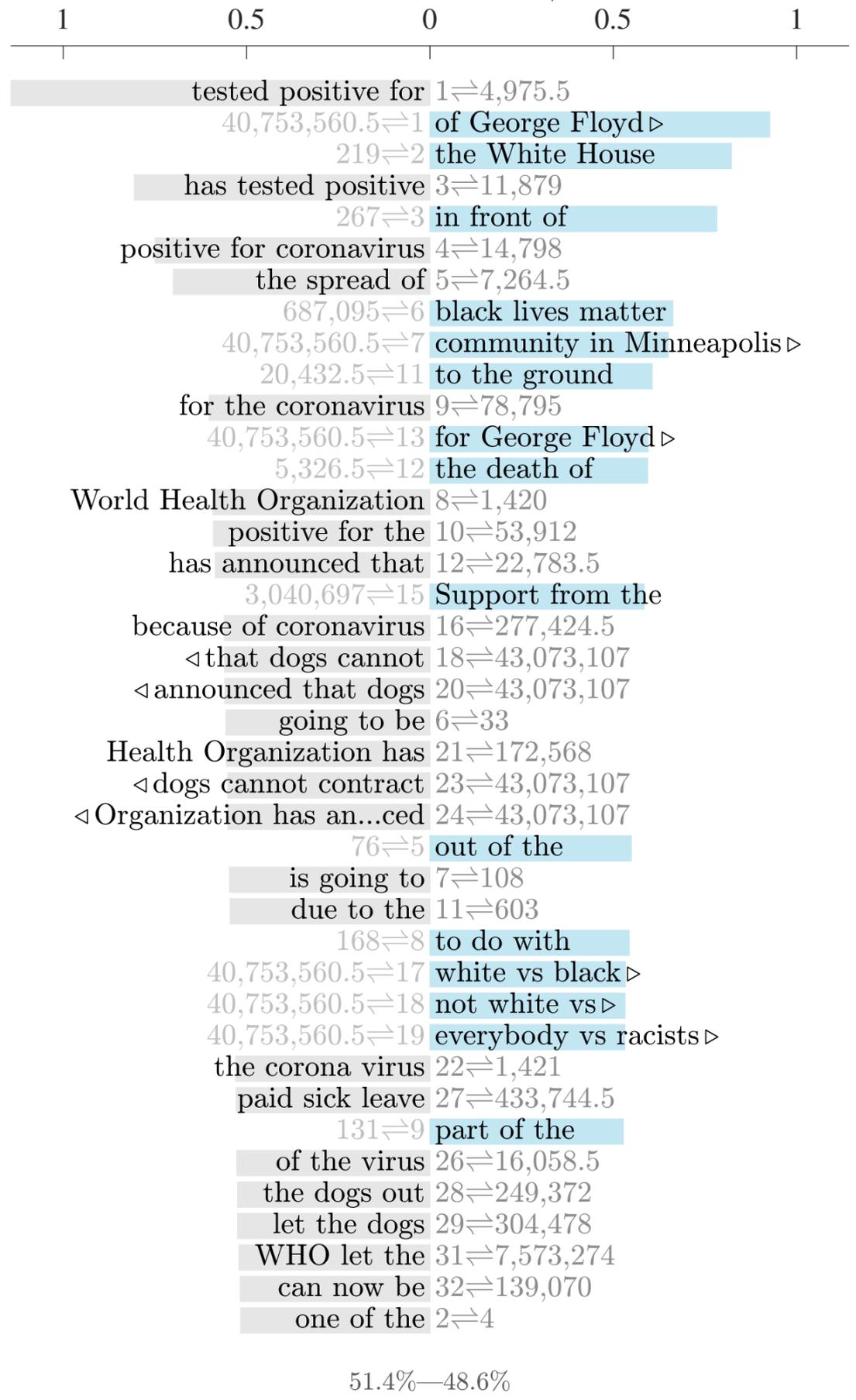


$$D_{17/12}^P(\Omega_1 \parallel \Omega_2) = 0.852$$

$$\propto \sum_{\tau} \left| p_{\tau,2}^{17/12} - p_{\tau,2}^{17/12} \right|^{12/29}$$



Divergence contribution $\delta D_{17/12,\tau}^P (\times 10^{-3}\%)$



Ω_1 : Twitter on 2020/03/12

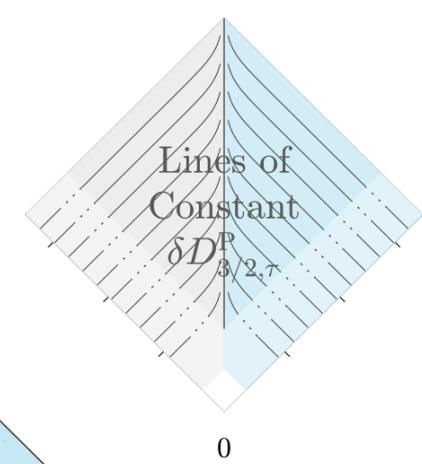
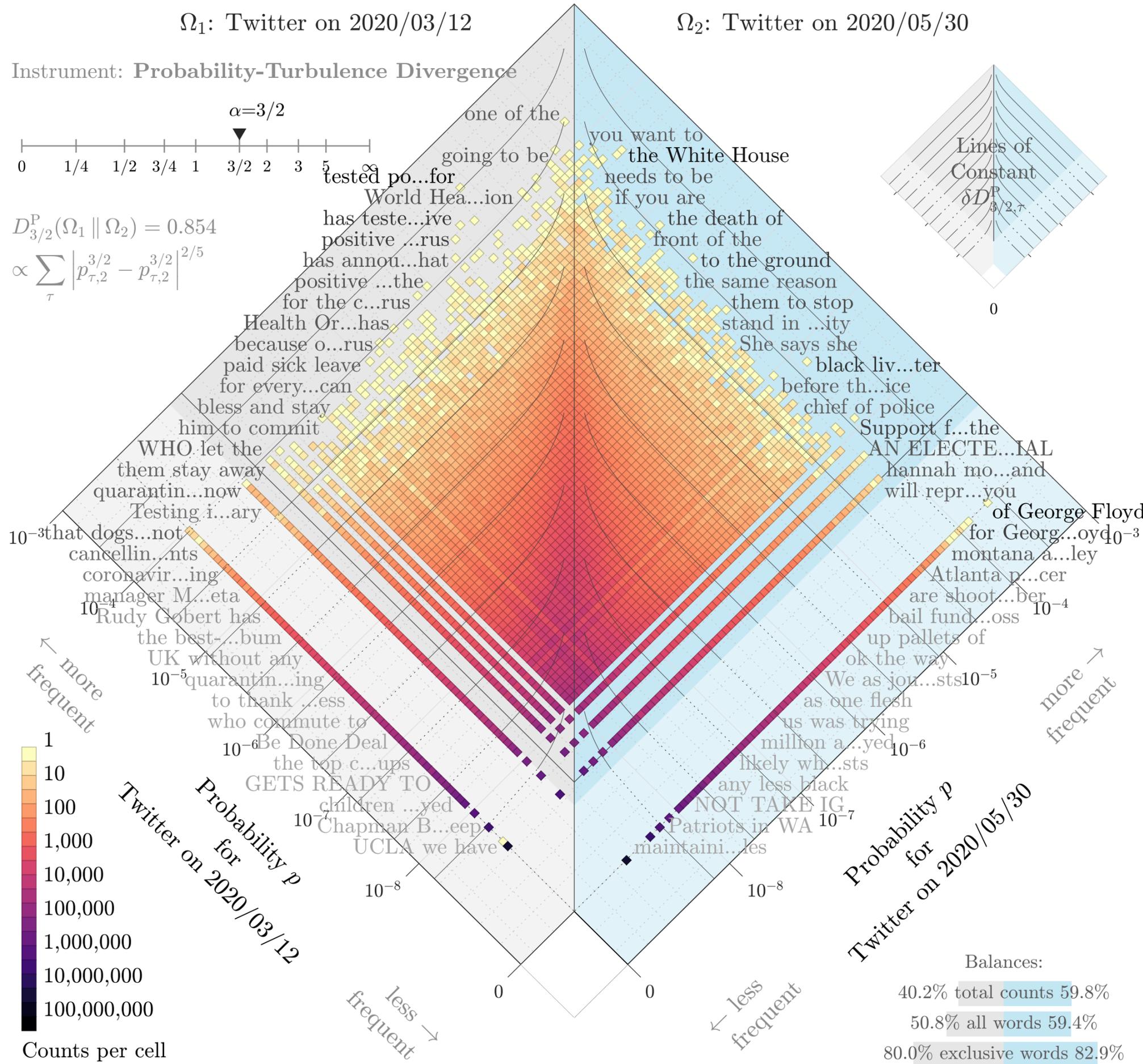
Ω_2 : Twitter on 2020/05/30

Instrument: Probability-Turbulence Divergence



$D_{3/2}^P(\Omega_1 \parallel \Omega_2) = 0.854$

$\propto \sum_{\tau} \left| p_{\tau,2}^{3/2} - p_{\tau,1}^{3/2} \right|^{2/5}$



Divergence contribution $\delta D_{3/2,\tau}^P (\times 10^{-3}\%)$

1	0.5	0	0.5	1
tested positive for	1 \Rightarrow 4,975.5			
of George Floyd	40,753,560.5 \Rightarrow 1			
the White House	219 \Rightarrow 2			
has tested positive	3 \Rightarrow 11,879			
in front of	267 \Rightarrow 3			
positive for coronavirus	4 \Rightarrow 14,798			
the spread of	5 \Rightarrow 7,264.5			
black lives matter	687,095 \Rightarrow 6			
community in Minneapolis	40,753,560.5 \Rightarrow 7			
to the ground	20,432.5 \Rightarrow 11			
for the coronavirus	9 \Rightarrow 78,795			
World Health Organization	8 \Rightarrow 1,420			
for George Floyd	40,753,560.5 \Rightarrow 13			
the death of	5,326.5 \Rightarrow 12			
positive for the	10 \Rightarrow 53,912			
has announced that	12 \Rightarrow 22,783.5			
Support from the	3,040,697 \Rightarrow 15			
going to be	6 \Rightarrow 33			
out of the	76 \Rightarrow 5			
because of coronavirus	16 \Rightarrow 277,424.5			
that dogs cannot	18 \Rightarrow 43,073,107			
announced that dogs	20 \Rightarrow 43,073,107			
is going to	7 \Rightarrow 108			
Health Organization has	21 \Rightarrow 172,568			
to do with	168 \Rightarrow 8			
due to the	11 \Rightarrow 603			
dogs cannot contract	23 \Rightarrow 43,073,107			
Organization has an...ced	24 \Rightarrow 43,073,107			
part of the	131 \Rightarrow 9			
one of the	2 \Rightarrow 4			
the corona virus	22 \Rightarrow 1,421			
white vs black	40,753,560.5 \Rightarrow 17			
not white vs	40,753,560.5 \Rightarrow 18			
everybody vs racists	40,753,560.5 \Rightarrow 19			
paid sick leave	27 \Rightarrow 433,744.5			
of the virus	26 \Rightarrow 16,058.5			
the dogs out	28 \Rightarrow 249,372			
let the dogs	29 \Rightarrow 304,478			
because of the	17 \Rightarrow 631.5			
WHO let the	31 \Rightarrow 7,573,274			

Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

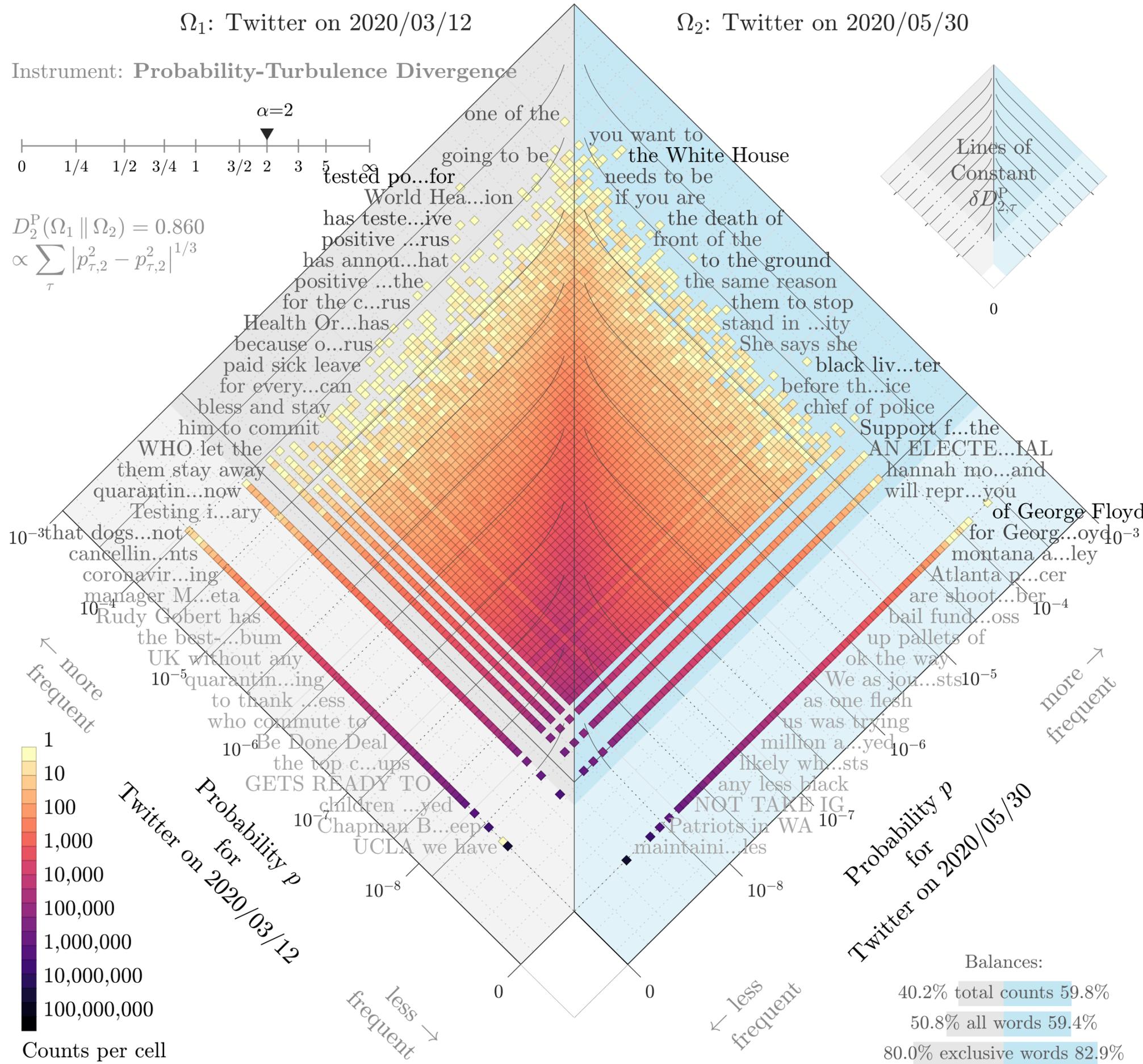
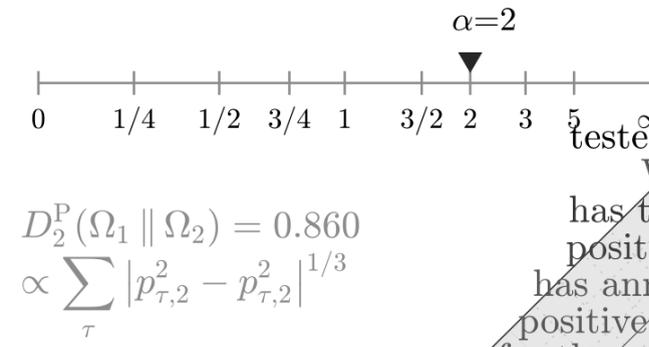
51.4%—48.6%

Counts per cell

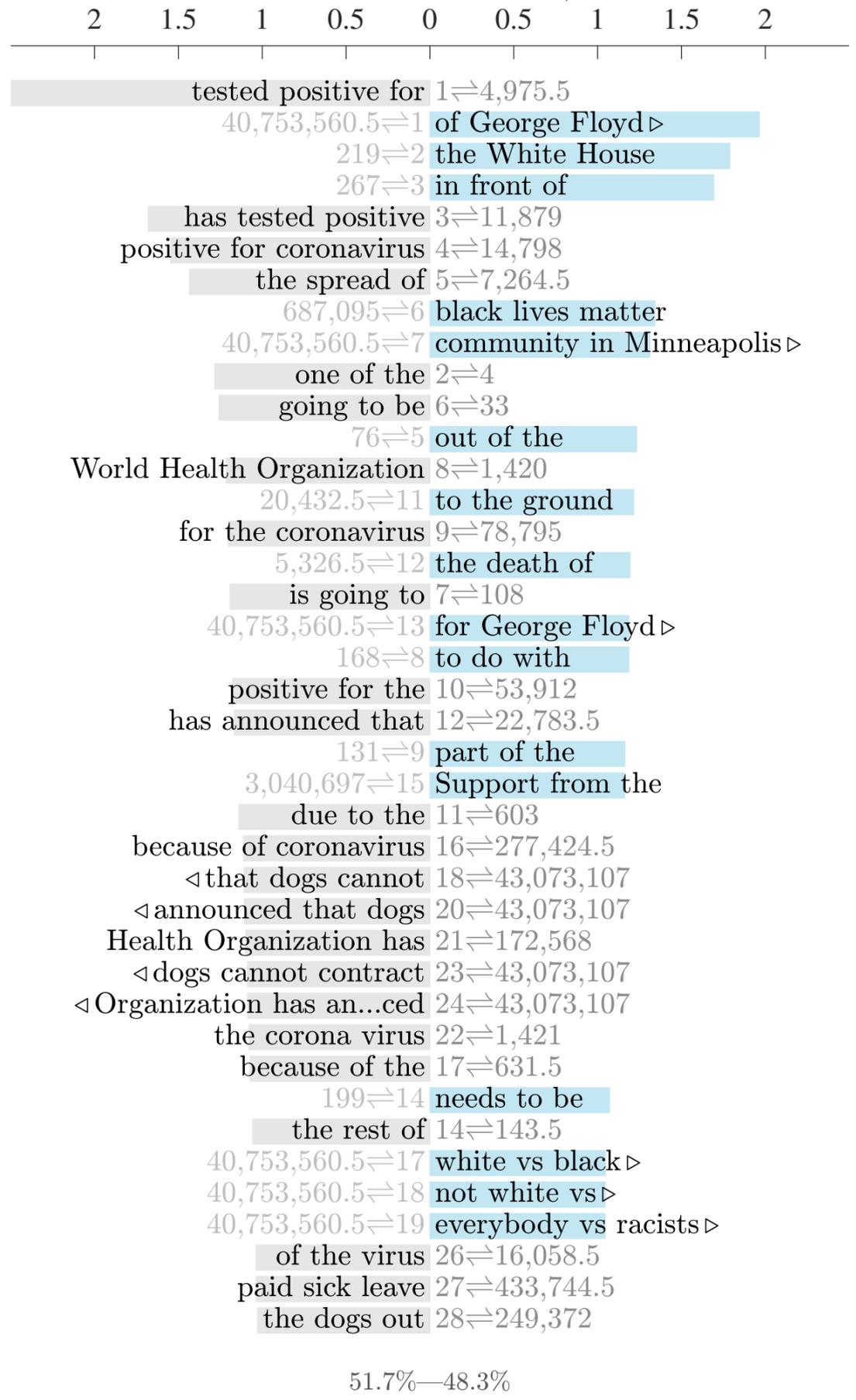
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Instrument: Probability-Turbulence Divergence



Divergence contribution $\delta D_{2,\tau}^P (\times 10^{-3}\%)$



Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

51.7%—48.3%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

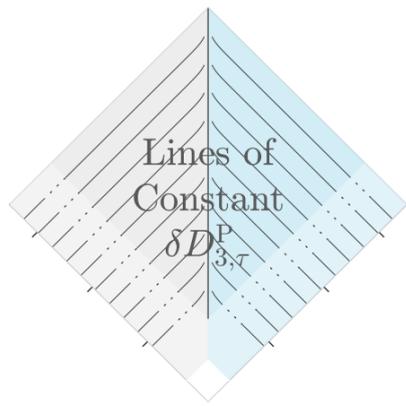
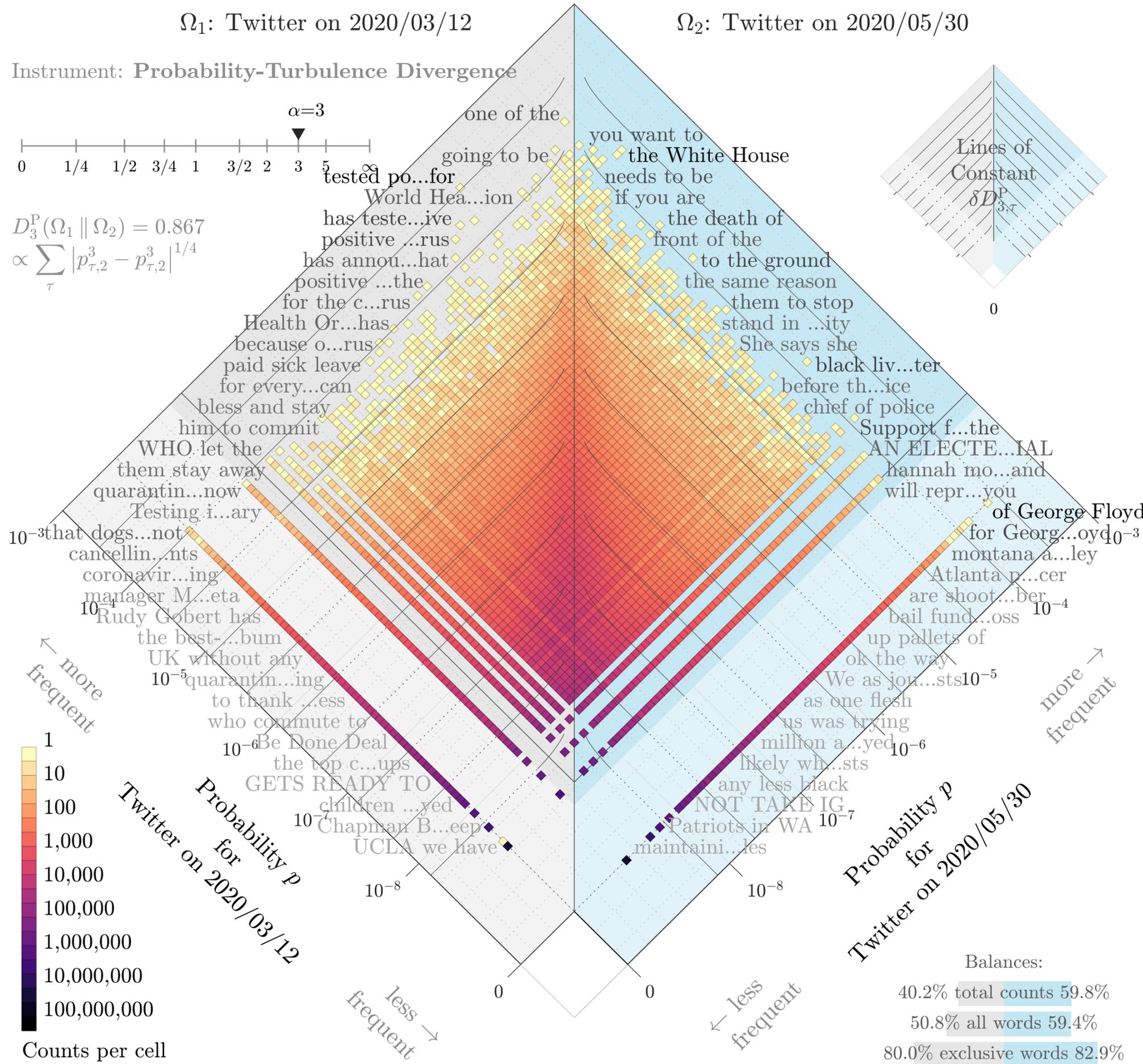
Divergence contribution $\delta D_{3,\tau}^P (\times 10^{-3}\%)$

Instrument: Probability-Turbulence Divergence

$\alpha=3$

$D_3^P(\Omega_1 \parallel \Omega_2) = 0.867$

$\propto \sum_{\tau} |p_{\tau,2}^3 - p_{\tau,1}^3|^{1/4}$



Rank	Word	Count	Contribution
1	tested positive for	4,975.5	1
2	of George Floyd	40,753,560.5	1
3	the White House	219	2
4	in front of	267	3
5	has tested positive	11,879	3
6	positive for coronavirus	14,798	4
7	one of the	2	4
8	the spread of	7,264.5	5
9	going to be	33	6
10	black lives matter	687,095	6
11	out of the	76	5
12	community in Minneapolis	40,753,560.5	7
13	is going to	108	7
14	to do with	168	8
15	part of the	131	9
16	World Health Organization	1,420	8
17	to the ground	20,432.5	11
18	for the coronavirus	78,795	9
19	the death of	5,326.5	12
20	for George Floyd	40,753,560.5	13
21	positive for the	53,912	10
22	due to the	603	11
23	has announced that	22,783.5	12
24	Support from the	3,040,697	15
25	needs to be	199	14
26	the rest of	143.5	14
27	because of coronavirus	277,424.5	16
28	that dogs cannot	43,073,107	18
29	announced that dogs	43,073,107	20
30	you want to	25	10
31	because of the	631.5	17
32	Health Organization has	172,568	21
33	the corona virus	1,421	22
34	dogs cannot contract	43,073,107	23
35	Organization has an...ced	43,073,107	24
36	be able to	13	45
37	white vs black	40,753,560.5	17
38	not white vs	40,753,560.5	18
39	everybody vs racists	40,753,560.5	19
40	of the virus	16,058.5	26

Balances:

- 40.2% total counts 59.8%
- 50.8% all words 59.4%
- 80.0% exclusive words 82.9%

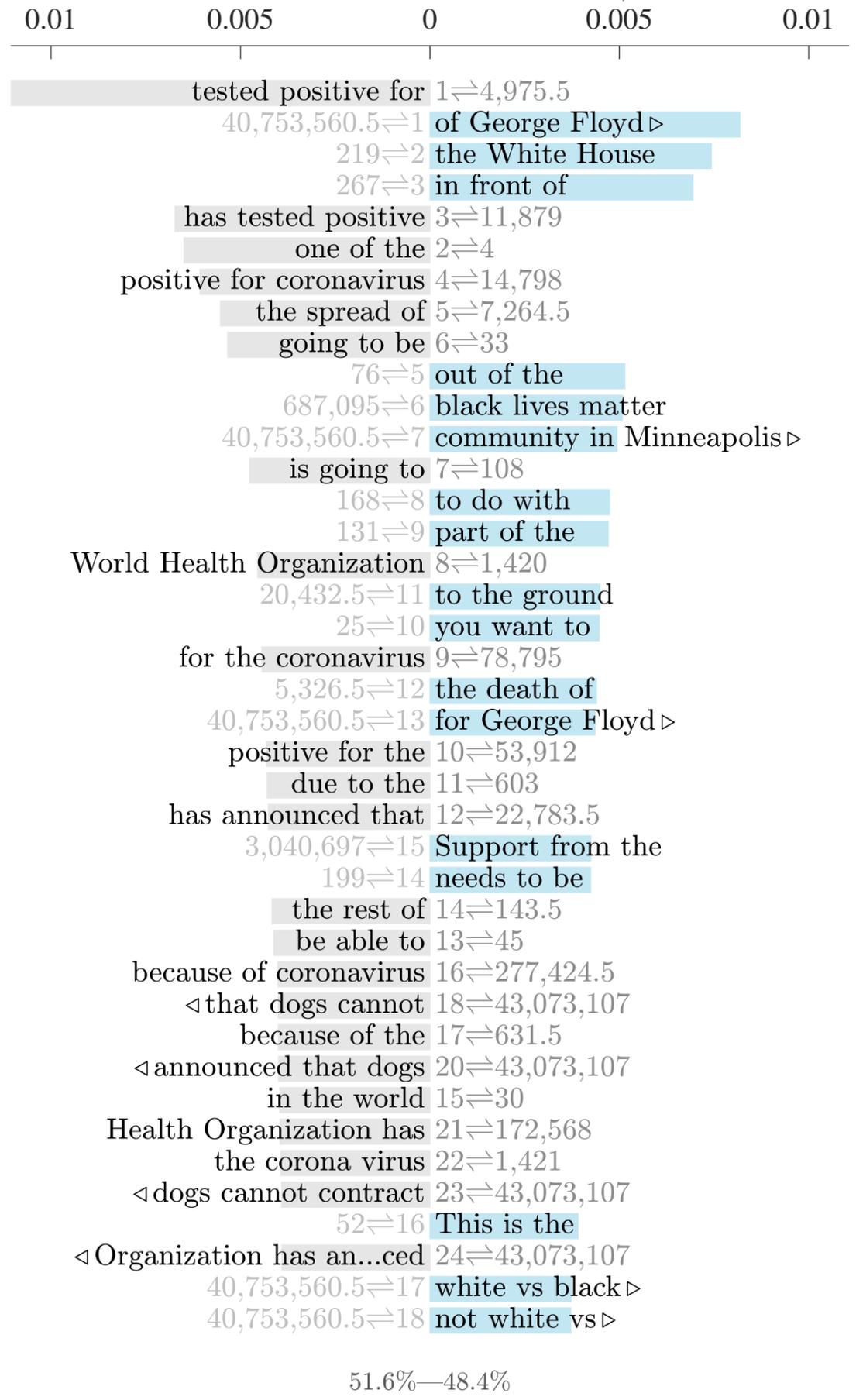
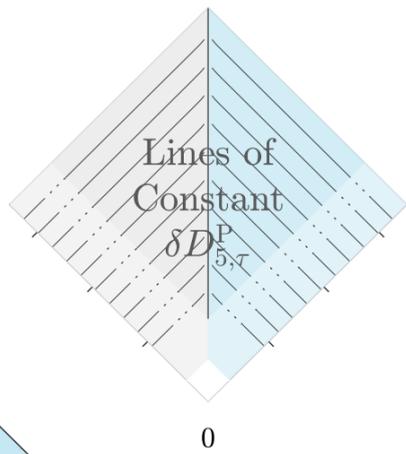
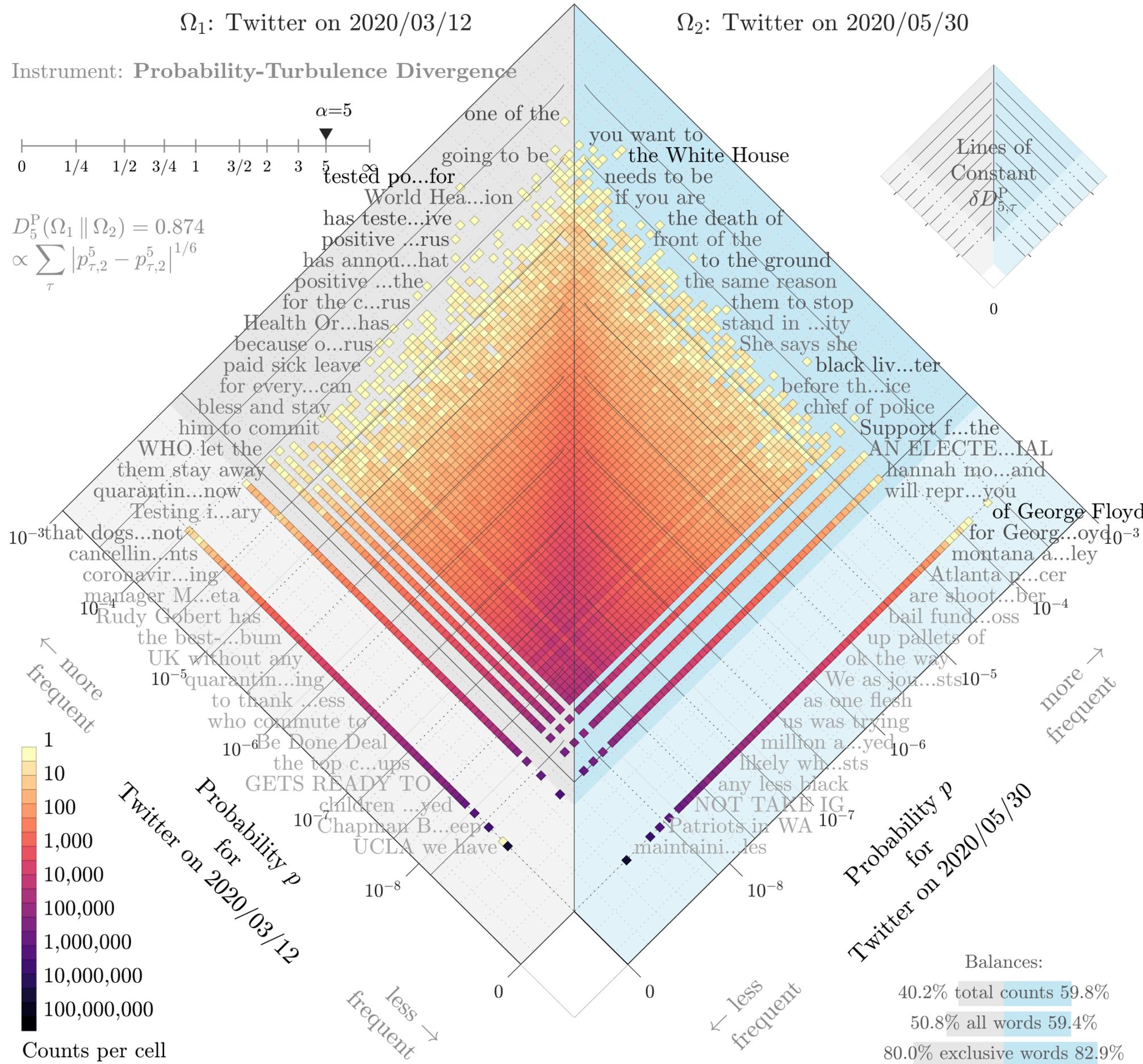
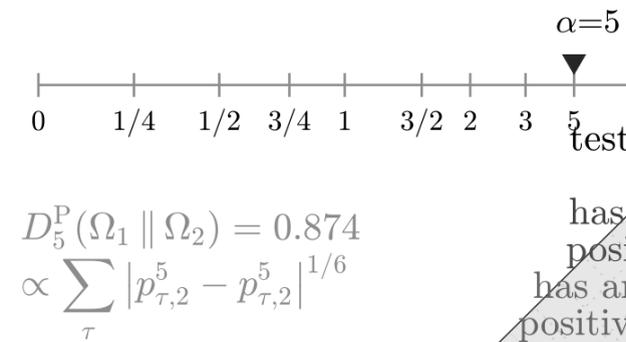
51.8%—48.2%

Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{5,\tau}^P$ (%)

Instrument: Probability-Turbulence Divergence

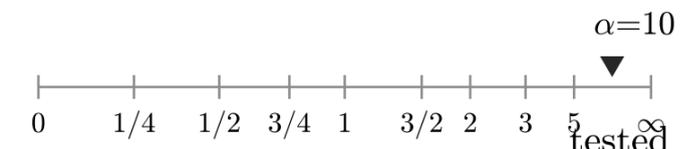


Ω_1 : Twitter on 2020/03/12

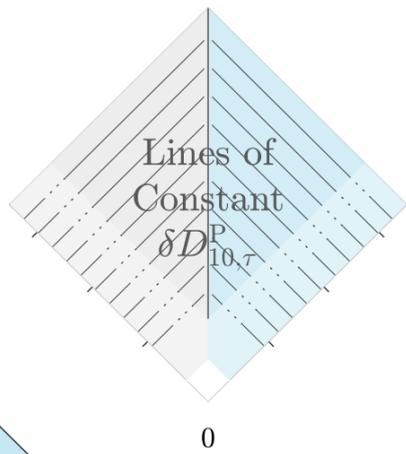
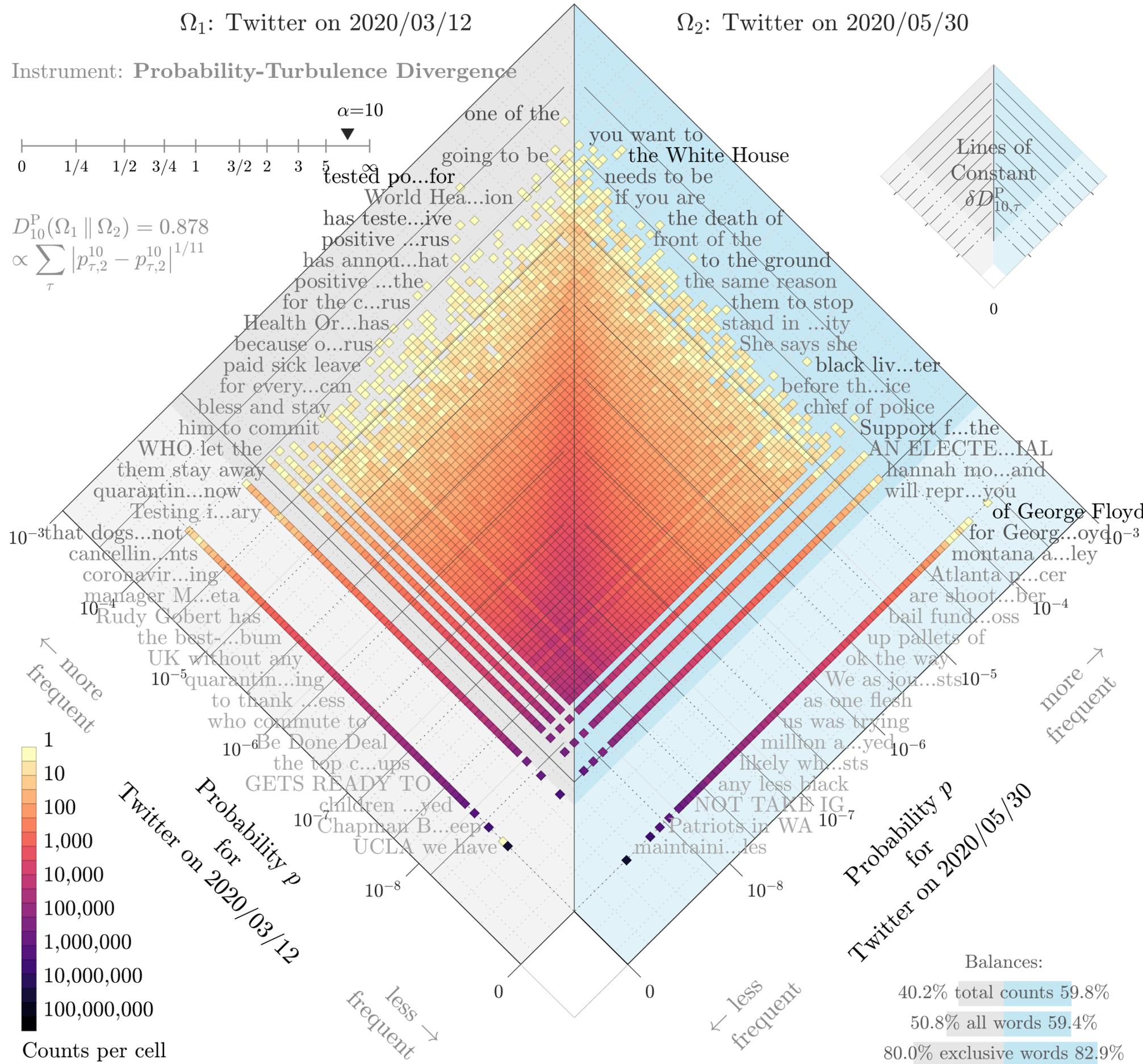
Ω_2 : Twitter on 2020/05/30

Divergence contribution $\delta D_{10,\tau}^P$ (%)

Instrument: Probability-Turbulence Divergence



$D_{10}^P(\Omega_1 || \Omega_2) = 0.878$
 $\propto \sum_{\tau} |p_{\tau,2}^{10} - p_{\tau,1}^{10}|^{1/11}$



Rank	Phrase	Count
1	tested positive for	4,975.5
2	of George Floyd	40,753,560.5
3	the White House	219
4	in front of	267
5	one of the	2
6	has tested positive	3
7	positive for coronavirus	11,879
8	the spread of	14,798
9	going to be	7,264.5
10	going to be	33
11	out of the	76
12	black lives matter	687,095
13	community in Minneapolis	40,753,560.5
14	is going to	7
15	to do with	168
16	part of the	131
17	you want to	25
18	World Health Organization	8
19	to the ground	20,432.5
20	for the coronavirus	9
21	the death of	78,795
22	for George Floyd	40,753,560.5
23	positive for the	53,912
24	due to the	603
25	has announced that	22,783.5
26	needs to be	199
27	Support from the	3,040,697
28	be able to	45
29	the rest of	143.5
30	in the world	30
31	This is the	52
32	because of coronavirus	277,424.5
33	because of the	631.5
34	that dogs cannot	43,073,107
35	announced that dogs	43,073,107
36	Health Organization has	172,568
37	the corona virus	1,421
38	the United States	19
39	dogs cannot contract	43,073,107
40	Organization has an...ced	43,073,107
41	white vs black	40,753,560.5

Balances:
40.2% total counts 59.8%
50.8% all words 59.4%
80.0% exclusive words 82.9%

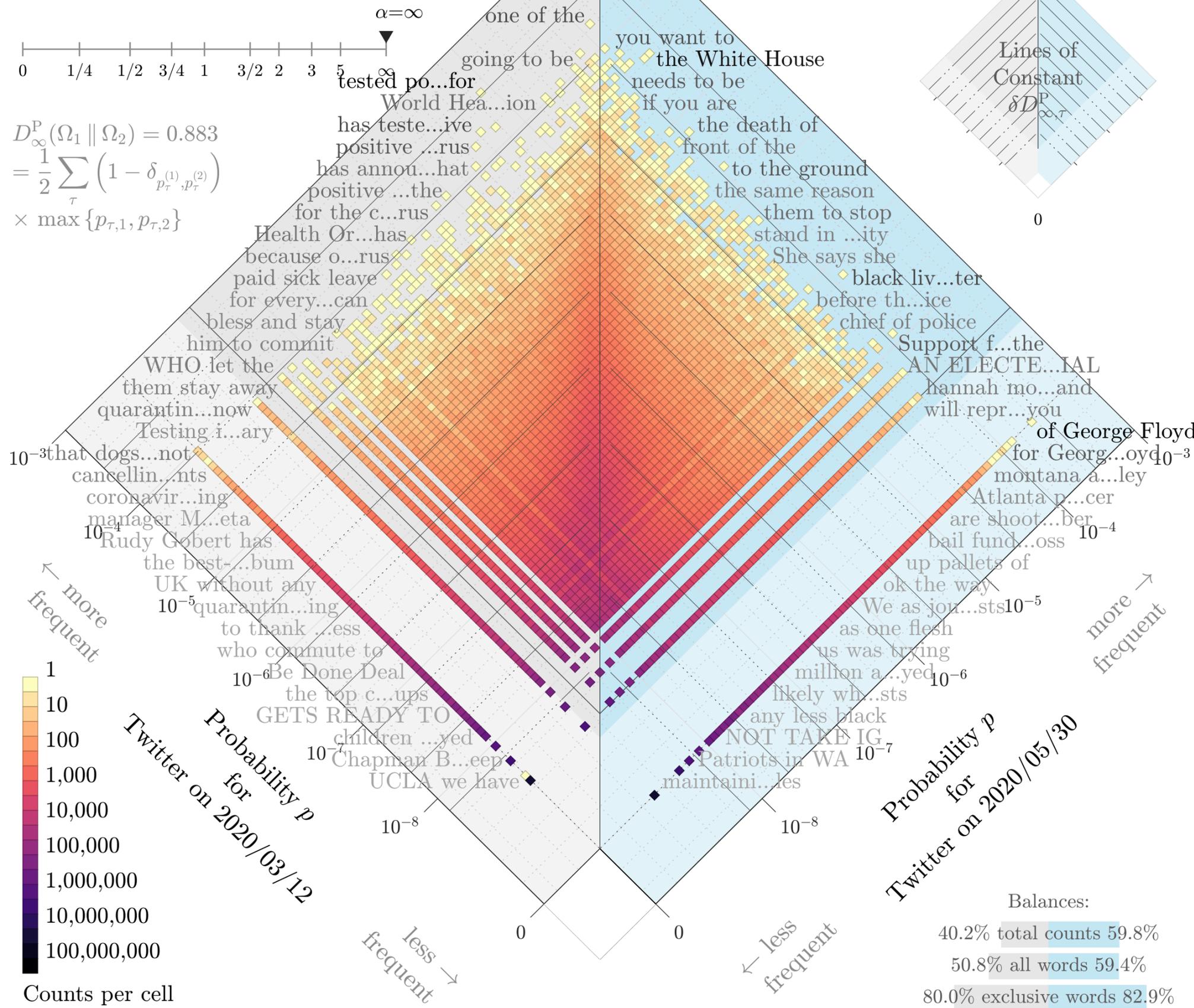
51.1%—48.9%

Counts per cell

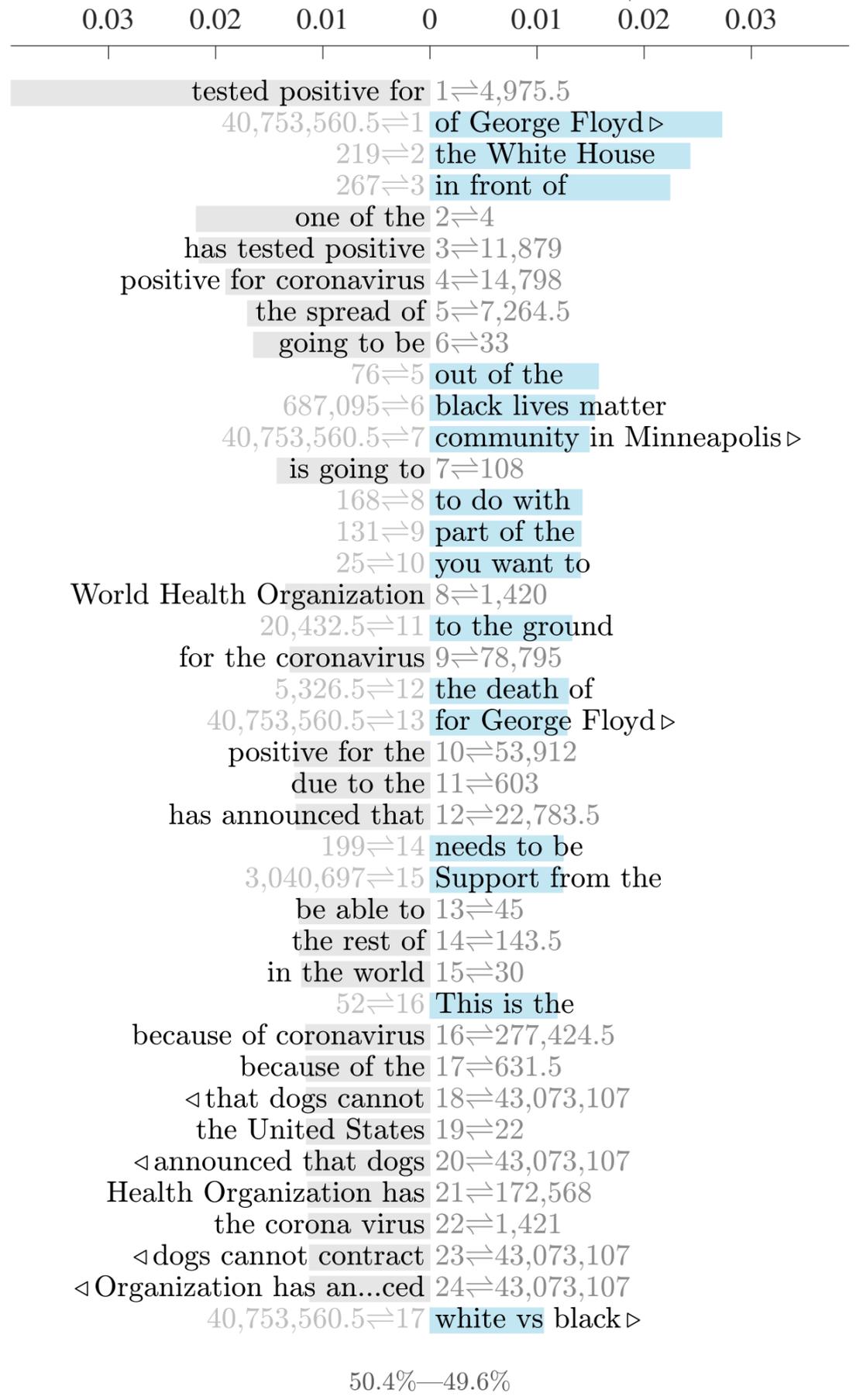
Ω_1 : Twitter on 2020/03/12

Ω_2 : Twitter on 2020/05/30

Instrument: Probability-Turbulence Divergence



Divergence contribution $\delta D_{\infty, \tau}^P$ (%)



Balances:
 40.2% total counts 59.8%
 50.8% all words 59.4%
 80.0% exclusive words 82.9%

50.4%—49.6%