Race Analysis

Competition	World Championship 2019
Race	100 Free Final

GWANGJU 2019 · Fina WORLD CHAMPIONSHIPS

SwimLAB

Manuel Simone

Name	Take off time	Average Speed	Rank	Lane
Manuel Simone	00:00.67	1.92	1	1

Result: 00:52.04

	1° 50	2° 50
Time	00:24.81	00:27.23
Stroke number *	36	36

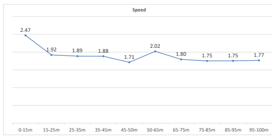
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.28	00:13.53	00:12.99	00:14.24

Total underwater parameters			
Underwater phase time	Time	00:07.11	13.66%
Underwater phase measure	Metre	18.00	18.00%
Underwater phase speed	Metre/Sec	2.53	
Swimming phase speed	Metre/Sec	1.83	

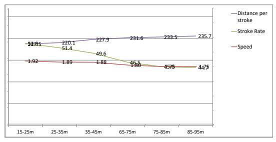
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.07	00:11.28	00:16.58	00:21.89	00:24.81	00:32.23	00:37.80	00:43.51	00:49.21	00:52.04	
Lap	Time	00:06.07	00:05.21	00:05.30	00:05.31	00:02.92	00:10.34	00:05.57	00:05.71	00:05.70	00:02.83	
Speed	Metre/Sec	2.47	1.92	1.89	1.88	1.71	1.93	1.80	1.75	1.75	1.77	1.84
Stroke Rate	Cycle/Min		52.9	51.4	49.6	48.8		46.5	45.0	44.7	46.2	48.4
Stroke tempo	Time		00:01.13	00:01.17	00:01.21	00:01.23		00:01.29	00:01.33	00:01.34	00:01.30	00:01.25
Distance per stroke	Cm		217.5	220.1	227.9			231.6	233.5	235.7		227.7
Stroke index	DPS*Speed		4.18	4.15	4.29			4.16	4.09	4.13		4.19

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:03.64	00:03.47
Breakout distance	Metre	10.30	7.70
Average 50m speed	Metre/Sec	2.02	1.84
Average swimming speed	Metre/Sec	1.88	1.78
Underwater phase speed	Metre/Sec	2.83	2.22
Speed difference between underwater and swimming	Metre/Sec	0.95	0.44

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Comerford Emma

Name	Take off time	Average Speed	Rank	Lane
Comerford Emma	00:00.68	1.88	7	2

Result: 00:53.22

	1° 50	2° 50
Time	00:25.33	00:27.89
Stroke number *	33	41

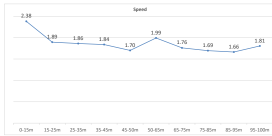
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.58	00:13.75	00:13.21	00:14.68

Total underwater parameters			
Underwater phase time	Time	00:07.37	13.85%
Underwater phase measure	Metre	19.05	19.05%
Underwater phase speed	Metre/Sec	2.58	
Swimming phase	Metre/Sec	1.77	

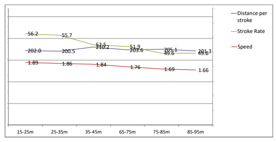
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.30	00:11.58	00:16.95	00:22.39	00:25.33	00:32.86	00:38.54	00:44.44	00:50.45	00:53.22	
Lap	Time	00:06.30	00:05.28	00:05.37	00:05.44	00:02.94	00:10.47	00:05.68	00:05.90	00:06.01	00:02.77	
Speed	Metre/Sec	2.38	1.89	1.86	1.84	1.70	1.91	1.76	1.69	1.66	1.81	1.79
Stroke Rate	Cycle/Min		56.2	55.7	52.5	47.6		51.9	49.6	49.6	48.8	52.6
Stroke tempo	Time		00:01.07	00:01.08	00:01.14	00:01.26		00:01.16	00:01.21	00:01.21	00:01.23	00:01.14
Distance per stroke	Cm		202.0	200.5	210.2			203.6	205.1	201.3		203.8
Stroke index	DPS*Speed		3.83	3.73	3.86			3.59	3.48	3.35		3.66

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:03.64	00:03.73
Breakout distance	Metre	10.70	8.35
Average 50m speed	Metre/Sec	1.97	1.79
Average swimming speed	Metre/Sec	1.81	1.72
Underwater phase speed	Metre/Sec	2.94	2.24
Speed difference between underwater and swimming	Metre/Sec	1.13	0.51

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Mckeon Emma

Name	Take off time	Average Speed	Rank	Lane
Mckeon Emma	00:00.72	1.90	4	3

Result: 00:52.75

	1° 50	2° 50
Time	00:25.46	00:27.29
Stroke number *	34	40

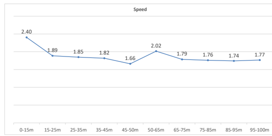
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.54	00:13.92	00:13.04	00:14.25

Total underwater parameters			
Underwater phase time	Time	00:08.24	15.62%
Underwater phase measure	Metre	19.95	19.95%
Underwater phase speed	Metre/Sec	2.42	
Swimming phase	Metre/Sec	1.80	

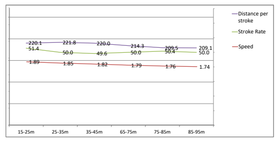
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.24	00:11.54	00:16.95	00:22.45	00:25.46	00:32.90	00:38.50	00:44.18	00:49.92	00:52.75	
Lap	Time	00:06.24	00:05.30	00:05.41	00:05.50	00:03.01	00:10.45	00:05.60	00:05.68	00:05.74	00:02.83	
Speed	Metre/Sec	2.40	1.89	1.85	1.82	1.66	1.91	1.79	1.76	1.74	1.77	1.81
Stroke Rate	Cycle/Min		51.4	50.0	49.6	48.8		50.0	50.4	50.0	48.8	50.2
Stroke tempo	Time		00:01.17	00:01.20	00:01.21	00:01.23		00:01.20	00:01.19	00:01.20	00:01.23	00:01.19
Distance per stroke	Cm		220.1	221.8	220.0			214.3	209.5	209.1		215.8
Stroke index	DPS*Speed		4.15	4.10	4.00			3.83	3.69	3.64		3.91

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.70	00:03.54
Breakout distance	Metre	12.00	7.95
Average 50m speed	Metre/Sec	1.96	1.83
Average swimming speed	Metre/Sec	1.83	1.77
Underwater phase speed	Metre/Sec	2.55	2.25
Speed difference between underwater and swimming	Metre/Sec	0.72	0.48

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Sjoestroem Sarah

Name	Take off time	Average Speed	Rank	Lane
Sjoestroem Sarah	00:00.67	1.91	3	4

Result: 00:52.46

	1° 50	2° 50
Time	00:25.23	00:27.23
Stroke number *	35	44

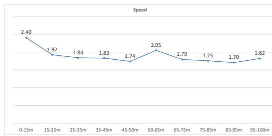
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.44	00:13.79	00:12.91	00:14.32

Total underwater parameters			
Underwater phase time	Time	00:06.67	12.71%
Underwater phase measure	Metre	16.55	16.55%
Underwater phase speed	Metre/Sec	2.48	
Swimming phase	Metre/Sec	1.82	

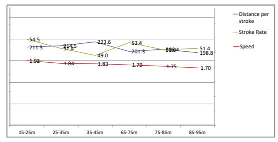
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.24	00:11.44	00:16.88	00:22.35	00:25.23	00:32.56	00:38.14	00:43.84	00:49.71	00:52.46	
Lap	Time	00:06.24	00:05.20	00:05.44	00:05.47	00:02.88	00:10.21	00:05.58	00:05.70	00:05.87	00:02.75	
Speed	Metre/Sec	2.40	1.92	1.84	1.83	1.74	1.96	1.79	1.75	1.70	1.82	1.81
Stroke Rate	Cycle/Min		54.5	51.4	49.0	48.8		53.4	51.0	51.4	50.0	51.8
Stroke tempo	Time		00:01.10	00:01.17	00:01.22	00:01.23		00:01.12	00:01.18	00:01.17	00:01.20	00:01.16
Distance per stroke	Cm		211.5	214.5	223.6			201.3	206.4	198.8		209.4
Stroke index	DPS*Speed		4.07	3.94	4.09			3.61	3.62	3.39		3.79

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.37	00:02.30
Breakout distance	Metre	11.15	5.40
Average 50m speed	Metre/Sec	1.98	1.84
Average swimming speed	Metre/Sec	1.86	1.79
Underwater phase speed	Metre/Sec	2.55	2.35
Speed difference between underwater and swimming	Metre/Sec	0.69	0.56

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Campbell Cate

Name	Take off time	Average Speed	Rank	Lane
Campbell Cate	00:00.77	1.91	2	5

Result: 00:52.43

	1° 50	2° 50
Time	00:25.29	00:27.14
Stroke number *	30	38

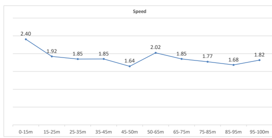
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.44	00:13.85	00:12.81	00:14.33

Total underwater parameters			
Underwater phase time	Time	00:08.24	15.72%
Underwater phase measure	Metre	19.80	19.80%
Underwater phase speed	Metre/Sec	2.40	
Swimming phase	Metre/Sec	1.81	

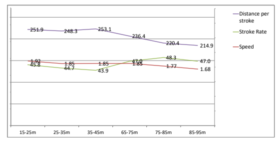
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.24	00:11.44	00:16.85	00:22.25	00:25.29	00:32.70	00:38.10	00:43.74	00:49.68	00:52.43	
Lap	Time	00:06.24	00:05.20	00:05.41	00:05.40	00:03.04	00:10.45	00:05.40	00:05.64	00:05.94	00:02.75	
Speed	Metre/Sec	2.40	1.92	1.85	1.85	1.64	1.91	1.85	1.77	1.68	1.82	1.83
Stroke Rate	Cycle/Min		45.8	44.7	43.9	41.1		47.0	48.3	47.0	46.2	46.1
Stroke tempo	Time		00:01.31	00:01.34	00:01.37	00:01.46		00:01.28	00:01.24	00:01.28	00:01.30	00:01.30
Distance per stroke	Cm		251.9	248.3	253.1			236.4	220.4	214.9		237.5
Stroke index	DPS*Speed		4.84	4.59	4.69			4.38	3.91	3.62		4.38

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.80	00:03.44
Breakout distance	Metre	11.95	7.85
Average 50m speed	Metre/Sec	1.98	1.84
Average swimming speed	Metre/Sec	1.86	1.78
Underwater phase speed	Metre/Sec	2.49	2.28
Speed difference between underwater and swimming	Metre/Sec	0.63	0.50

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Ruck Taylor

Name	Take off time	Average Speed	Rank	Lane
Ruck Taylor	00:00.71	1.89	5	6

Result: 00:53.03

	1° 50	2° 50
Time	00:25.40	00:27.63
Stroke number *	35	42

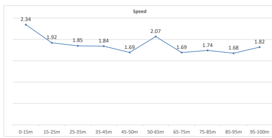
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.61	00:13.79	00:13.17	00:14.46

Total underwater parameters			
Underwater phase time	Time	00:07.00	13.20%
Underwater phase measure	Metre	16.75	16.75%
Underwater phase speed	Metre/Sec	2.39	
Swimming phase	Metre/Sec	1.81	

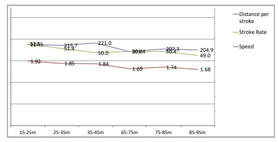
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.40	00:11.61	00:17.02	00:22.45	00:25.40	00:32.66	00:38.57	00:44.31	00:50.28	00:53.03	
Lap	Time	00:06.40	00:05.21	00:05.41	00:05.43	00:02.95	00:10.21	00:05.91	00:05.74	00:05.97	00:02.75	
Speed	Metre/Sec	2.34	1.92	1.85	1.84	1.69	1.96	1.69	1.74	1.68	1.82	1.78
Stroke Rate	Cycle/Min		52.9	51.4	50.0	47.6		50.4	50.4	49.0	47.6	50.7
Stroke tempo	Time		00:01.13	00:01.17	00:01.20	00:01.26		00:01.19	00:01.19	00:01.22	00:01.26	00:01.18
Distance per stroke	Cm		217.5	215.7	221.0			201.4	207.3	204.9		211.3
Stroke index	DPS*Speed		4.18	3.99	4.07			3.41	3.61	3.43		3.77

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.30	00:02.70
Breakout distance	Metre	10.45	6.30
Average 50m speed	Metre/Sec	1.97	1.81
Average swimming speed	Metre/Sec	1.87	1.75
Underwater phase speed	Metre/Sec	2.43	2.33
Speed difference between underwater and swimming	Metre/Sec	0.56	0.58

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Heemskerk Femke

Name	Take off time	Average Speed	Rank	Lane
Heemskerk Femke	00:00.74	1.89	6	7

Result: 00:53.05

	1° 50	2° 50
Time	00:25.53	00:27.52
Stroke number *	35	42

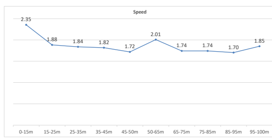
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.68	00:13.85	00:13.21	00:14.31

Total underwater parameters			
Underwater phase time	Time	00:06.60	12.44%
Underwater phase measure	Metre	17.15	17.15%
Underwater phase speed	Metre/Sec	2.60	
Swimming phase	Metre/Sec	1.78	

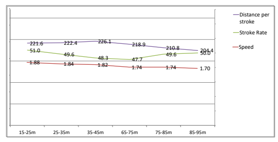
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.37	00:11.68	00:17.12	00:22.62	00:25.53	00:33.00	00:38.74	00:44.48	00:50.35	00:53.05	
Lap	Time	00:06.37	00:05.31	00:05.44	00:05.50	00:02.91	00:10.38	00:05.74	00:05.74	00:05.87	00:02.70	
Speed	Metre/Sec	2.35	1.88	1.84	1.82	1.72	1.93	1.74	1.74	1.70	1.85	1.79
Stroke Rate	Cycle/Min		51.0	49.6	48.3	46.2		47.7	49.6	50.0	53.1	49.4
Stroke tempo	Time		00:01.18	00:01.21	00:01.24	00:01.30		00:01.26	00:01.21	00:01.20	00:01.13	00:01.22
Distance per stroke	Cm		221.6	222.4	226.1			218.9	210.8	204.4		217.4
Stroke index	DPS*Speed		4.17	4.09	4.11			3.81	3.67	3.48		3.90

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.40	00:02.20
Breakout distance	Metre	11.20	5.95
Average 50m speed	Metre/Sec	1.96	1.82
Average swimming speed	Metre/Sec	1.84	1.74
Underwater phase speed	Metre/Sec	2.55	2.70
Speed difference between underwater and swimming	Metre/Sec	0.71	0.96

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



Andereson Freya

Name	Take off time	Average Speed	Rank	Lane
Andereson Freya	00:00.79	1.87	8	8

Result: 00:53.44

	1° 50	2° 50
Time	00:26.07	00:27.37
Stroke number *	33	40

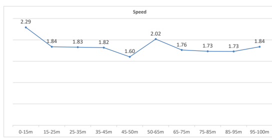
Laps and Splits	1° 25	2° 25	3° 25	4° 25
Time	00:11.98	00:14.09	00:13.10	00:14.27

Total underwater parameters			
Underwater phase time	Time	00:06.54	12.24%
Underwater phase measure	Metre	16.25	16.25%
Underwater phase speed	Metre/Sec	2.48	
Swimming phase	Metre/Sec	1.79	

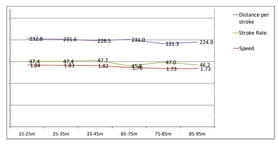
		Start 15m	15-25m	25-35m	35-45m	45-50m	Turn 45-65m	65-75m	75-85m	85-95m	95-100m	Average swimming parameters
Split	Time	00:06.54	00:11.98	00:17.45	00:22.95	00:26.07	00:33.50	00:39.17	00:44.94	00:50.72	00:53.44	
Lap	Time	00:06.54	00:05.44	00:05.47	00:05.50	00:03.12	00:10.55	00:05.67	00:05.77	00:05.78	00:02.72	
Speed	Metre/Sec	2.29	1.84	1.83	1.82	1.60	1.90	1.76	1.73	1.73	1.84	1.79
Stroke Rate	Cycle/Min		47.4	47.4	47.7	48.8		45.8	47.0	46.2	48.8	46.9
Stroke tempo	Time		00:01.27	00:01.27	00:01.26	00:01.23		00:01.31	00:01.28	00:01.30	00:01.23	00:01.28
Distance per stroke	Cm		232.8	231.6	228.5			231.0	221.3	224.9		228.4
Stroke index	DPS*Speed		4.28	4.23	4.15			4.07	3.83	3.89		4.10

Underwater - Swimming phases		1° 50	2° 50
Breakout time	Time	00:04.40	00:02.14
Breakout distance	Metre	10.85	5.40
Average 50m speed	Metre/Sec	1.92	1.83
Average swimming speed	Metre/Sec	1.81	1.77
Underwater phase speed	Metre/Sec	2.47	2.52
Speed difference between underwater and swimming	Metre/Sec	0.66	0.76

Speed evolution



Comparision Distance per stroke - Stroke Rate - Speed



* = for Freestyle and Backstroke the movement of every single arm

SwimLab by Stefano Nurra

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