

# Race Analysis

Competition **World Championship 2019**  
 Race **100 Back Final**



**Fina**  
 WORLD  
 CHAMPIONSHIPS

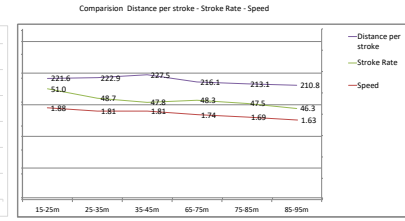
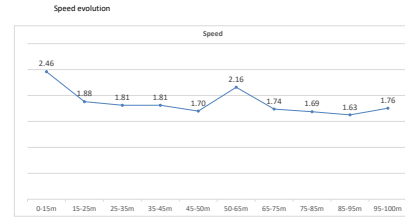


Name	Take off time	Average Speed	Rank
<b>Average of the final</b>	00:05.63	1.89	
<b>Result</b>	00:53.02	1'50 2'50	
		Time 00:25.40 00:27.63	
		Stroke number * 32.8 35.5	
		Split 1'26 2'26 3'26 4'26	
		Time 00:11.42 00:13.98 00:12.70 00:14.93	
		Start 15m 15-25m 25-35m 35-45m 45-50m 50-60m 60-75m 75-85m 85-95m 95-100m	
		Split Time 00:06.10 00:11.42 00:16.93 00:22.45 00:25.40 00:32.34 00:38.10 00:44.02 00:50.17 00:53.02	
		Lap Time 00:06.10 00:05.31 00:05.52 00:02.94 00:09.89 00:05.75 00:05.93 00:06.25 00:02.85	
		Speed Meter/Sec 2.46 1.88 1.81 1.81 1.70 2.02 1.74 1.69 1.63 1.76	
		Stroke Rate (stroke/m) 51.0 48.7 47.8 48.4 48.3 47.5 46.3 46.3 46.3	
		Stroke tempo Time 00:01.18 00:01.23 00:01.26 00:01.24 00:01.24 00:01.26 00:01.29 00:01.30	
		Distance per stroke (m) 22.6 22.9 22.5 22.5 21.6 21.3 20.8 21.87	
		Stroke index (m³/Sec) 4.17 4.04 4.12 3.76 3.60 3.44 1.87	

Total underwater parameters	
Underwater phase time	Time 00:11.02 20.69%
Underwater phase measure	Meter 26.20 26.29%
Underwater phase speed	Meter/Sec 2.39
Swimming phase speed	Meter/Sec 1.75

Underwater - Swimming phases	
Breakout time	Time 0'50 2'50
Breakout distance	Meter 00:05.56 00:05.46
Average 50m speed	Meter/Sec 1.97 1.81
Average swimming speed	Meter/Sec 1.83 1.70
Underwater phase speed	Meter/Sec 2.52 2.15
Speed difference between underwater and swimming	Meter/Sec 0.71 0.55

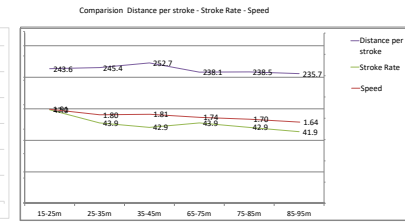
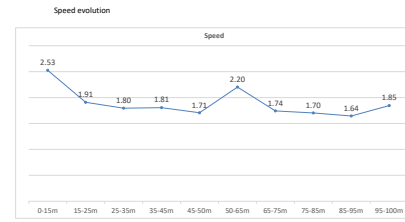


Name	Take off time	Average Speed	Rank
<b>Jiayu Xu</b>	00:05.53	1.91	1
<b>Result</b>	00:52.43	1'50 2'50	
		Time 00:25.22 00:27.21	
		Stroke number * 29 31	
		Split 1'26 2'26 3'26 4'26	
		Time 00:11.18 00:14.04 00:12.55 00:14.66	
		Start 15m 15-25m 25-35m 35-45m 45-50m 50-60m 60-75m 75-85m 85-95m 95-100m	
		Split Time 00:05.94 00:11.18 00:16.75 00:22.29 00:25.22 00:32.03 00:37.77 00:43.64 00:49.72 00:52.43	
		Lap Time 00:05.94 00:05.24 00:05.57 00:02.93 00:09.74 00:05.74 00:05.87 00:06.08 00:02.71	
		Speed Meter/Sec 2.53 1.91 1.80 1.81 1.71 2.05 1.74 1.70 1.64 1.85	
		Stroke Rate (stroke/m) 47.0 43.9 43.9 43.9 43.9 43.8 42.8 41.9 41.9 45.2	
		Stroke tempo Time 00:01.28 00:01.37 00:01.40 00:01.40 00:01.37 00:01.40 00:01.43 00:01.33	
		Distance per stroke (m) 24.5 24.4 24.2 23.1 23.5 23.7 24.23	
		Stroke index (m³/Sec) 4.05 4.41 4.56 4.15 4.06 3.88 4.31	

Total underwater parameters	
Underwater phase time	Time 00:11.48 21.90%
Underwater phase measure	Meter 27.80 27.80%
Underwater phase speed	Meter/Sec 2.42
Swimming phase speed	Meter/Sec 1.76

Underwater - Swimming phases	
Breakout time	Time 0'50 2'50
Breakout distance	Meter 00:05.67 00:05.81
Average 50m speed	Meter/Sec 1.98 1.84
Average swimming speed	Meter/Sec 1.83 1.72
Underwater phase speed	Meter/Sec 2.57 2.27
Speed difference between underwater and swimming	Meter/Sec 0.76 0.55

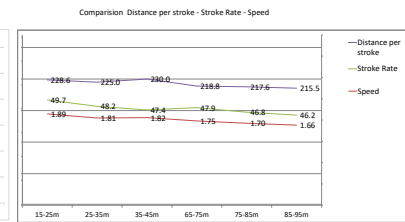
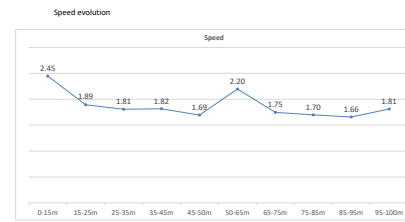


Name	Take off time	Average Speed	Rank
<b>Average of first three</b>	00:05.59	1.90	
<b>Result</b>	00:52.62	1'50 2'50	
		Time 00:25.40 00:27.23	
		Stroke number * 32.3 35.5	
		Split 1'26 2'26 3'26 4'26	
		Time 00:11.41 00:13.98 00:12.55 00:14.68	
		Start 15m 15-25m 25-35m 35-45m 45-50m 50-60m 60-75m 75-85m 85-95m 95-100m	
		Split Time 00:06.11 00:11.41 00:16.94 00:22.45 00:25.40 00:32.22 00:37.95 00:43.83 00:49.86 00:52.62	
		Lap Time 00:06.11 00:05.28 00:05.53 00:02.95 00:09.78 00:05.72 00:05.89 00:06.03 00:02.78	
		Speed Meter/Sec 2.45 1.89 1.81 1.82 1.69 2.05 1.75 1.70 1.66 1.81	
		Stroke Rate (stroke/m) 49.7 48.2 47.4 47.9 47.8 46.2 46.2 45.1	
		Stroke tempo Time 00:01.21 00:01.24 00:01.27 00:01.25 00:01.25 00:01.28 00:01.30 00:01.27	
		Distance per stroke (m) 23.8 23.0 23.0 23.8 23.6 23.5 23.7	
		Stroke index (m³/Sec) 4.33 4.07 4.18 3.82 3.70 3.57 3.98	

Total underwater parameters	
Underwater phase time	Time 00:11.02 20.88%
Underwater phase measure	Meter 26.40 26.40%
Underwater phase speed	Meter/Sec 2.41
Swimming phase speed	Meter/Sec 1.77

Underwater - Swimming phases	
Breakout time	Time 0'50 2'50
Breakout distance	Meter 00:05.41 00:05.55
Average 50m speed	Meter/Sec 1.97 1.84
Average swimming speed	Meter/Sec 1.83 1.72
Underwater phase speed	Meter/Sec 2.54 2.28
Speed difference between underwater and swimming	Meter/Sec 0.73 0.55

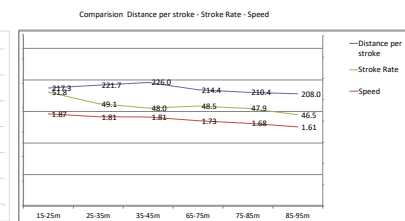
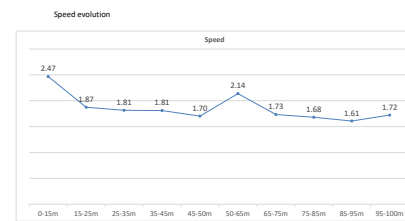


Name	Take off time	Average Speed	Rank
<b>Average last 5</b>	00:05.10	1.88	
<b>Result</b>	00:53.26	1'50 2'50	
		Time 00:25.39 00:27.87	
		Stroke number * 33.0 36.0	
		Split 1'26 2'26 3'26 4'26	
		Time 00:11.42 00:13.98 00:12.79 00:15.08	
		Start 15m 15-25m 25-35m 35-45m 45-50m 50-60m 60-75m 75-85m 85-95m 95-100m	
		Split Time 00:06.08 00:11.42 00:16.93 00:22.46 00:25.39 00:32.41 00:38.18 00:44.14 00:50.36 00:53.26	
		Lap Time 00:06.08 00:05.34 00:05.51 00:02.94 00:09.96 00:05.77 00:05.95 00:06.22 00:02.90	
		Speed Meter/Sec 2.47 1.87 1.81 1.81 1.70 2.01 1.73 1.68 1.61 1.72	
		Stroke Rate (stroke/m) 51.8 49.1 48.0 48.0 48.1 47.8 46.5 46.5 45.8	
		Stroke tempo Time 00:01.16 00:01.22 00:01.25 00:01.22 00:01.24 00:01.25 00:01.29 00:01.31	
		Distance per stroke (m) 21.3 22.1 22.0 21.4 20.4 20.8 21.63	
		Stroke index (m³/Sec) 4.07 4.02 4.09 3.72 3.54 3.36 3.81	

Total underwater parameters	
Underwater phase time	Time 00:11.05 20.94%
Underwater phase measure	Meter 26.22 26.22%
Underwater phase speed	Meter/Sec 2.37
Swimming phase speed	Meter/Sec 1.79

Underwater - Swimming phases	
Breakout time	Time 0'50 2'50
Breakout distance	Meter 00:05.65 00:05.41
Average 50m speed	Meter/Sec 1.97 1.79
Average swimming speed	Meter/Sec 1.83 1.68
Underwater phase speed	Meter/Sec 2.51 2.23
Speed difference between underwater and swimming	Meter/Sec 0.69 0.54



\* - for Freestyle and Backstroke the movement of every single arm

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