



ASIAN
LE MANS
SERIES

Performance Analysis

Asian Le Mans Series



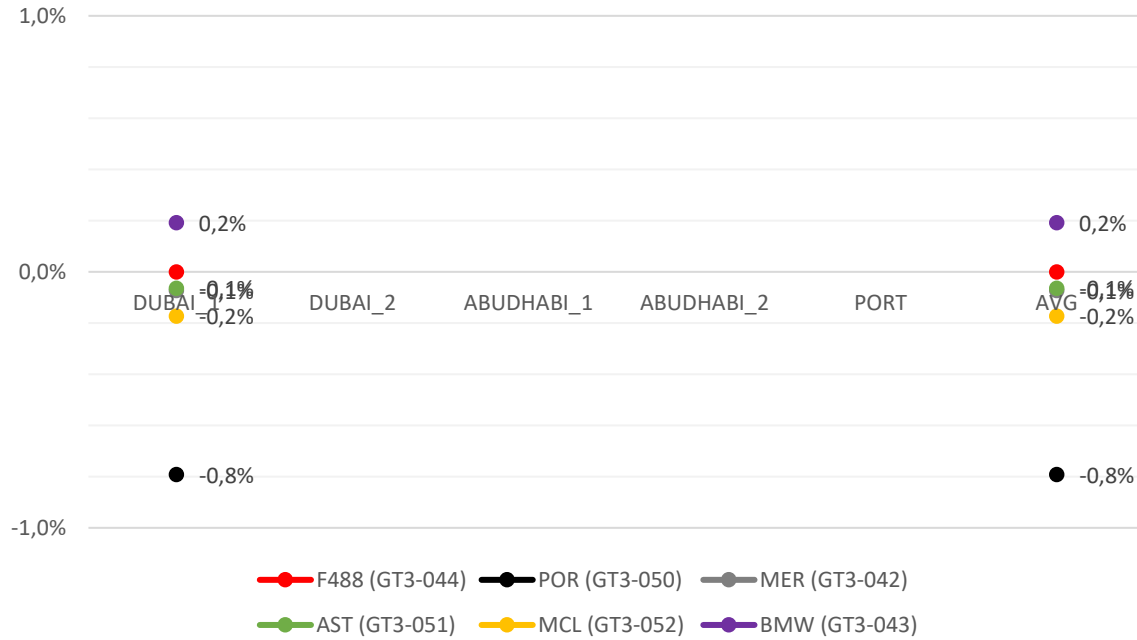
Driver Performance

Average of best 10 laps of each drivers

This graph combines the best 10 laps of each driver in the fastest car of each make and is normalized to the performance of the FER GT3-044.
All "CORR" results are corrected to the last BOP

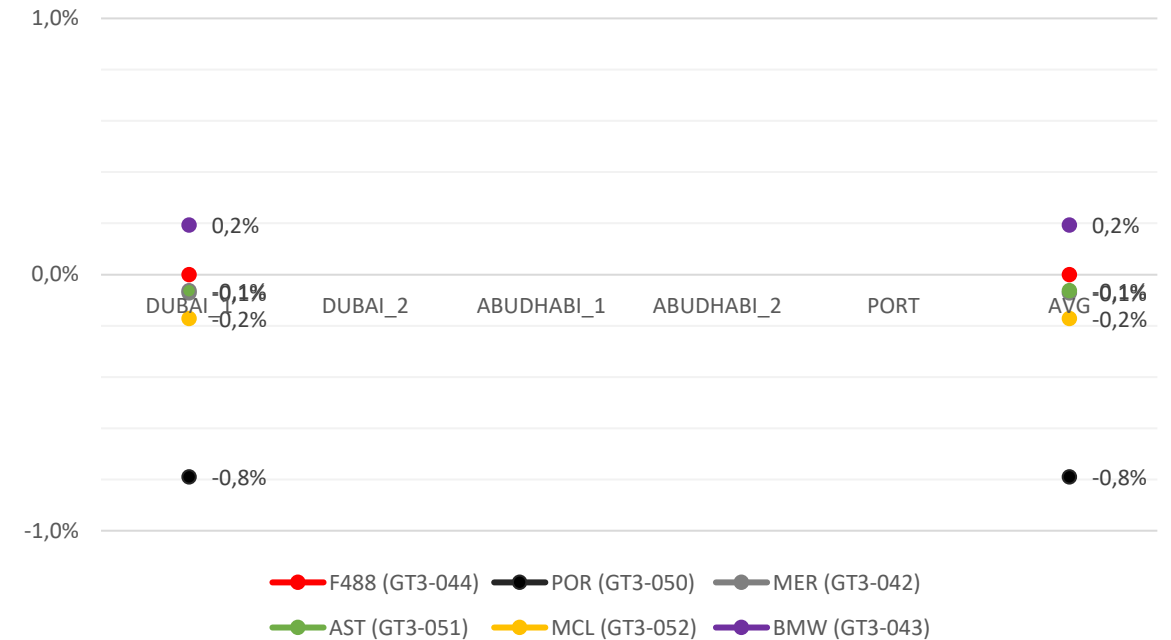
GT3 Driver Performance

Average of 10 best of each driver (RAW)



GT3 Driver Performance

Average of 10 best of each driver (CORR)



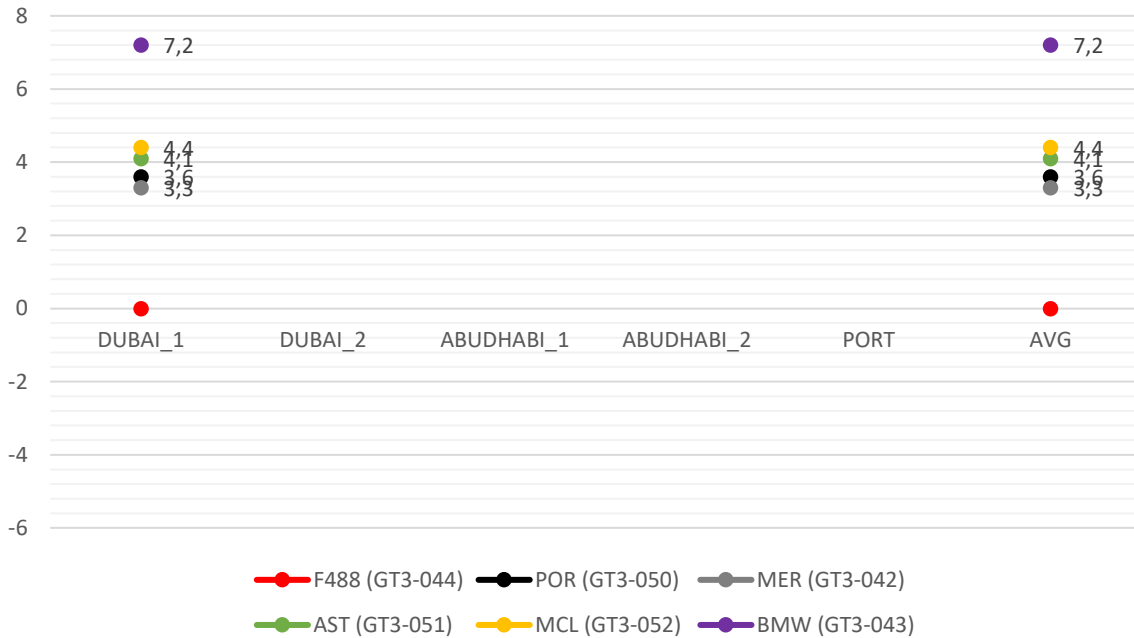


Top Speed Performance

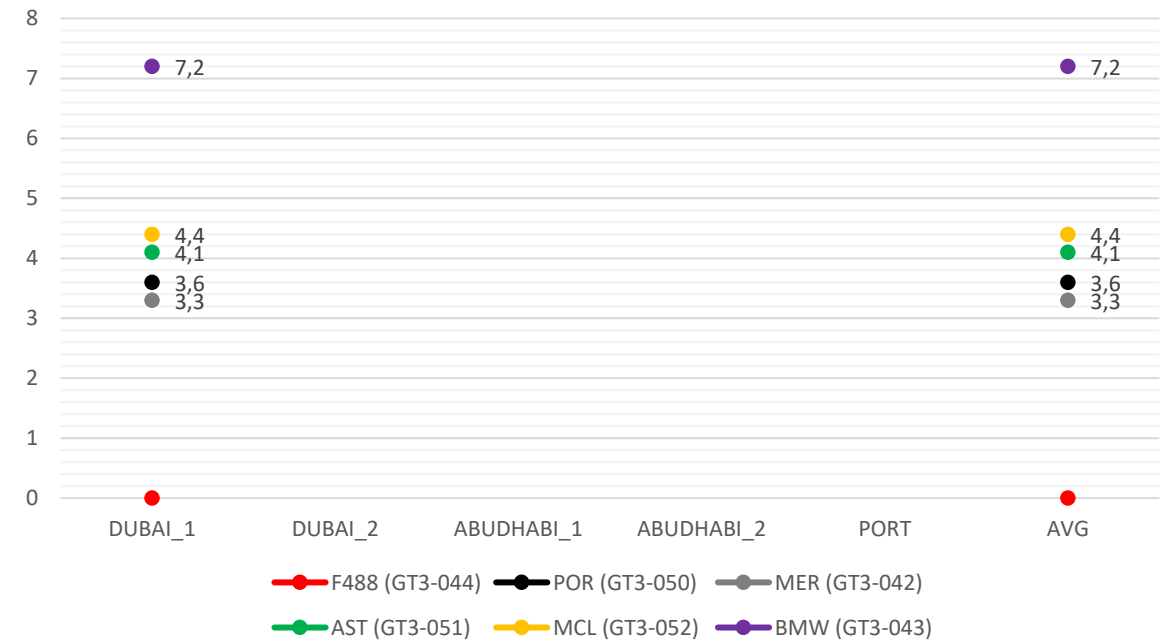
20% Average Fastest Top Speed

This graph shows the best 20% average top speed of the car with the best 20% laptime average of each make and is normalized to the performance of the FER GT3-044
All "CORR" results are corrected to the last BOP

GT3 TS Performance Average 20% Best (RAW)



GT3 TS Performance Average 20% Best (CORR)





BOP DETAILED ANALYSIS

Race by Race Study





Round 1 – Dubai

Race by Race Study





BOP DETAILED ANALYSIS – R01 DUBAI

ENTRY LIST

No.	GT		NAT	CAR	DRIVER 1	NAT		DRIVER 2	NAT		DRIVER 3	NAT	
1	HubAuto Racing		TPE	Mercedes AMG GT3	Raffaele Marciello	ITA	P	Marcos Gomes	BRA	S	Liam Talbot	AUS	B
7	INCEPTION RACING		GBR	Mclaren 720S GT3	Brendan Iribe	GBR	B	Oliver Millroy	GBR	S	Ben Barnicoat	GBR	G
27	Kessel Racing	AM	SUI	Ferrari 488 GT3	Giorgio Roda	ITA	S	Francesco Zollo	ITA	B	Tim Kohmann	GER	B
34	Walkenhorst Motorsport		GER	BMW M6 GT3	Chandler Hull	USA	B	Jonathan Miller	USA	S	Nicky Catsburg	NED	P
35	Walkenhorst Motorsport	AM	GER	BMW M6 GT3	Henry Walkenhorst	GER	B	Jörg Breuer	GER	B	Sami Matti Trogen	FIN	S
40	GPX Racing		UAE	Porsche 911 GT3 R	Julien Andlauer	FRA	G	Axcil Jefferies	ZWE	S	Alain Ferté	FRA	B
51	AF Corse		ITA	Ferrari 488 GT3	Francesco Piovaneli	PRI	B	Oswaldo Negri	USA	B	Alessandro Pier Guidi	ITA	P
54	AF Corse		ITA	Ferrari 488 GT3	Thomas Flohr	SUI	B	Francesco Castellacci	MCO	S	Giancarlo Fisichella	ITA	P
55	Rinaldi Racing		GER	Ferrari 488 GT3	Rino Mastronardi	ITA	B	David Perel	RSA	S	Davide Rigon	ITA	P
57	Kessel Racing by Car Guy		SUI	Ferrari 488 GT3	Takeshi Kimura	JPN	B	Come Ledogar	FRA	P	Mikkel Jensen	DNK	S
60	Formula Racing		DNK	Ferrari 488 GT3	Johnny Laursen	DNK	B	Allessio Rovera	ITA	S	Nicklas Nielsen	DNK	G
66	Rinaldi Racing	AM	GER	Ferrari 488 GT3	Christian Hook	GER	B	Manuel Lauck	GER	B	Patrick Kujala	FIN	S
77	D'Station Racing		JPN	Aston Martin Vantage AMR GT3	Satoshi Hoshino	JPN	B	Tomonobu Fujii	JPN	G	Tom Gamble	GBR	S
88	Garage 59		GBR	Aston Martin Vantage AMR GT3	Alexander West	GBR	B	Maxime Martin	BEL	P	Valentin Hasse-Clot	FRA	S
89	Garage 59		GBR	Aston Martin Vantage AMR GT3	Michael Benham	GBR	B	Marvin Kirchhofer	SUI	G	Yuki Nemoto	JPN	S
93	Precote Herbeth Motorsport		GER	Porsche 911 GT3 R	Steffen Görig	GER	B	Antares Au	HKG	B	Klaus Bachler	AUT	G
95	TF Sport		GBR	Aston Martin Vantage AMR GT3	John Hartshorne	GBR	B	Oliver Hancock	GBR	S	Charlie Eastwood	IRL	G
97	Oman Racing With TF		OMN	Aston Martin Vantage AMR GT3	Ahmad Al Harthy	OMN	B	Thomas Canning	GBR	S	Jonny Adam	GBR	P
99	Precote Herbeth Motorsport		GER	Porsche 911 GT3 R	Ralf Bohn	GER	B	Alfred Renauer	GER	S	Robert Renauer	GER	G

(Continued on Page 2)





BOP DETAILED ANALYSIS – R01 DUBAI

BOP



FUEL RIG RESTRICTOR DIAMETER (mm)	
GT3 All Cars	≤33mm

ASIAN LE MANS SERIES BALANCE OF PERFORMANCE



Version: 21-1

GT3			CHASSIS			ENGINE				COMMENTS
HOMOLOGATION NUMBER FIA	MANUFACTURER	MODEL NAME	CAR WEIGHT (kg)			RESTRICTOR DIAMETER (mm)				
			previous (1)	adjust. (2)	final	# Restrictors	previous (1)	adjust. (2)	final (*)	
GT3-042	MERCEDES AMG	GT3	+1325 kg	-	+1325 kg	2	34,5 mm	-	34,5 mm	
GT3-043	BMW	M6 GT3	+1315 kg	-	+1315 kg	-	-	-	-	See Boost Table
GT3-044	FERRARI	F488	+1300 kg	-	+1300 kg	-	-	-	-	See Boost Table
GT3-050	PORSCHE	911 GT3-R	+1255 kg	-	+1255 kg	2	41,5 mm	-	41,5 mm	
GT3-051	ASTON MARTIN	VANTAGE GT3	+1300 kg	-	+1300 kg	-	-	-	-	See Boost Table
GT3-052	MCLAREN	720S-GT3	+1275 kg	-	+1275 kg	-	-	-	-	See Boost Table

HOMOLOGATION	GT3-043
MANUFACTURER	BMW
MODEL NAME	M6 GT3
RPM	MAX BOOST RATIO
4000	1,76
4500	1,84
5000	1,92
5500	1,96
6000	1,92
6500	1,73
7000	1,60
>/7100	1,43

HOMOLOGATION	GT3-044
MANUFACTURER	Ferrari
MODEL NAME	488
RPM	MAX BOOST RATIO
4000	1,45
4500	1,49
5000	1,53
5500	1,56
6000	1,58
6500	1,56
7000	1,51
7500	1,43
>/7600	1,35

HOMOLOGATION	GT3-051
MANUFACTURER	Aston Martin
MODEL NAME	Vantage GT3
RPM	MAX BOOST RATIO
4000	1,62
4500	1,67
5000	1,75
5500	1,81
5750	1,82
6000	1,84
6250	1,83
6500	1,83
6750	1,77
7000	1,72
7200	1,63
>/7300	1,40

HOMOLOGATION	GT3-052
MANUFACTURER	Mclaren
MODEL NAME	720S
RPM	MAX BOOST RATIO
4000	1,78
4500	1,75
5000	1,72
5500	1,70
6000	1,62
6500	1,56
7000	1,45
7500	1,40
8000	1,34
>8100	1,12

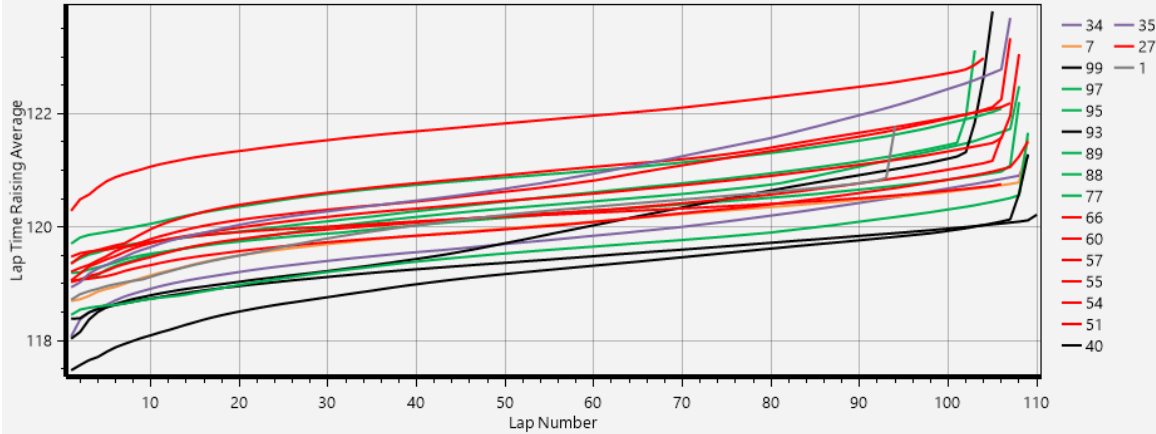




BOP DETAILED ANALYSIS – R01 DUBAI

Race Analysis

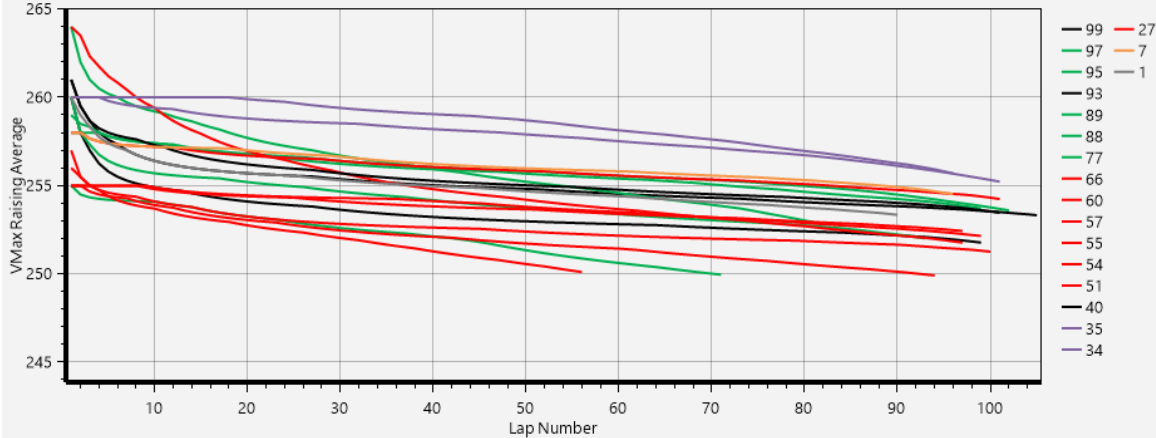
Lap Time Raising Average



	0:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00
99	Ralf Bohn	Alfred Renauer	Robert Renauer	Alfred Renauer				
40	Julien Andlauer	Axcil Jefferies	Axcil Jefferies	Alain Ferté				
7	Brendan Iribe	Ollie Millroy	Ollie Millroy	Ben Barnicoat				
34	Jonathan Miller	Chandler Hull	Nicky Catsburg	Nicky Catsburg				
88	Maxime Martin	Alexander West	Valetin Hasse-Clot	Maxime Martin				
60	Johnny Laursen	Allessio Rovera	Nicklas Nielsen	Nicklas Nielsen				
97	Ahmad Al Harthy	Thomas Canning	Jonny Adam	Jonny Adam				
55	David Perel	Rino Mastronardi	Davide Rigon	Davide Rigon				
57	Takeshi Kimura	Mikkel Jensen	Come Ledogar	Come Ledogar				
95	John Hartshorne	Oliver Hancock	Charlie Eastwood	Charlie Eastwood				
54	Giancarlo Fisichella	Thomas Flohr	Francesco Castellacci	Giancarlo Fisichella				
66	Manuel Lauck	Christian Hook	Patrick Kujala	Patrick Kujala				
77	Satoshi Hoshino	Tom Gamble	Tomonobu Fujii	Tomonobu Fujii				
93	Steffen Görig	Antares Au	Klaus Bachler	Klaus Bachler	Klaus Bachler	Klaus Bachler		
51	Oswaldo Negri	Francesco Piovaneli	Alessandro Pier Guidi	Alessandro Pier Guidi				
35	Henry Walkenhorst	Jörg Breuer	Sami Matti Trogen	Sami Matti Trogen				
89	Michael Benham	Yuki Nemoto	Marvin Kirchhofer	Marvin Kirchhofer	Marvin Kirchhofer	Marvin Kirchhofer		
27	Francesco Zollo	Giorgio Roda	Tim Kohmann	Giorgio Roda	Giorgio Roda	Giorgio Roda		
1	Liam Talbot	Marcos Gomes	Marcos Gomes	Raffaele Marciello				

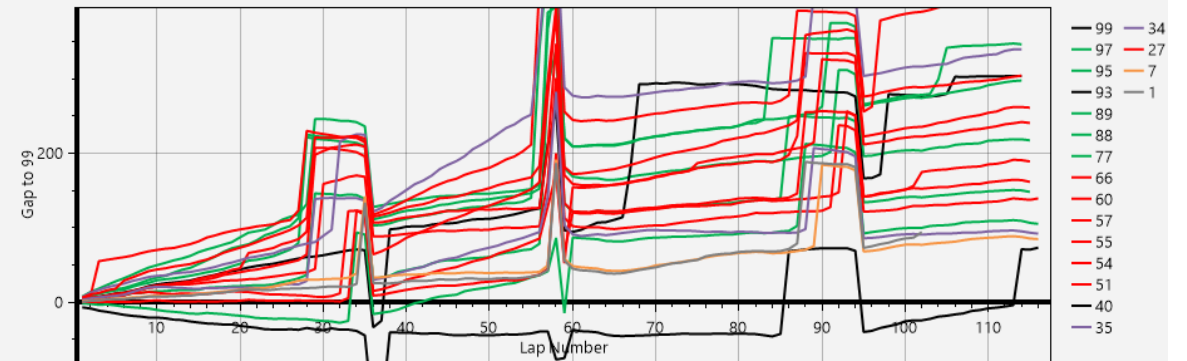
Raising Average Graph (2)

VMax Raising Average



Gap Graph

Gap to 99 vs. Lap Number





BOP DETAILED ANALYSIS – R01 DUBAI

Driver Analysis

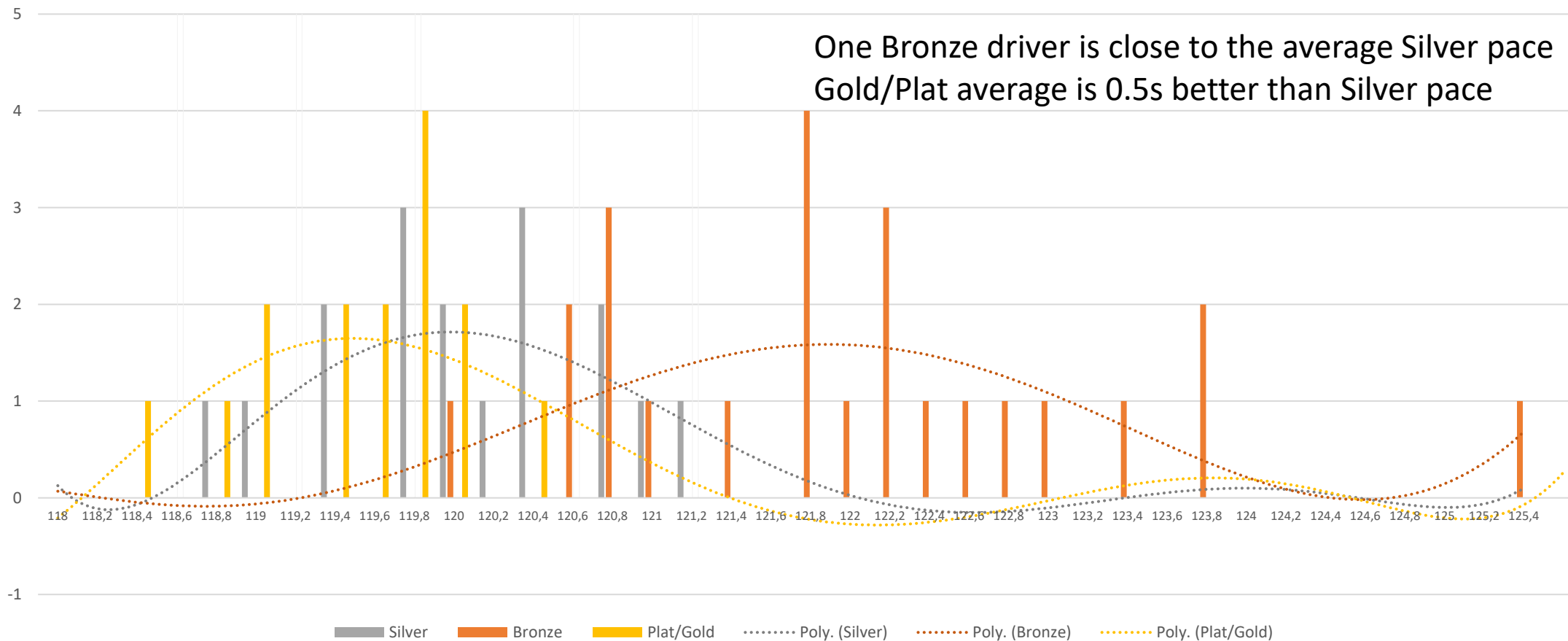
#	Driver	Class	Best	Best In	Laps	Theo	Rolling	Best 10 Laps Avg	Driving Time	Average of drivers	Difference between fastest and slowest driver
1	Liam Talbot	GT	120.125	6	34	119.969	119.969	120.613	4140		
1	Marcos Gomes	GT	118.721	63	53	118.532	118.721	119.306	6602	120.03	1.307
1	Raffaele Marciello	GT	118.98	89	15	118.881	118.957	120.166	1812		
7	Ben Barnicoat	GT	119.111	92	27	118.844	118.844	119.785	3245		
7	Brendan Iribe	GT	120.028	8	34	119.747	119.903	120.677	4154	119.91	0.892
7	Ollie Millroy	GT	118.7	63	55	118.665	118.665	119.263	6829		
27	Francesco Zollo	GT	121.883	5	28	121.596	121.883	122.787	3501		
27	Giorgio Roda	GT	120.289	30	56	120.172	120.172	121.134	6973	121.85	1.653
27	Tim Kohmann	GT	121.085	62	30	120.543	121.085	121.64	3747		
34	Chandler Hull	GT	120.728	32	29	120.634	120.68	121.729	3600		
34	Jonathan Miller	GT	119.976	15	28	119.556	119.976	120.393	3416	120.35	1.336
34	Nicky Catsburg	GT	118.076	90	59	117.999	118.076	118.916	7220		
35	Henry Walkenhorst	GT	121.765	11	31	121.426	121.765	122.254	3848		
35	Jörg Breuer	GT	124.726	37	26	124.155	124.396	125.308	3498	122.40	3.054
35	Sami Matti Trogen	GT	118.942	59	57	118.898	118.942	119.65	6892		
40	Alain Ferté	GT	119.931	91	31	119.79	119.79	120.457	3832		
40	Axcil Jefferies	GT	118.386	64	48	118.118	118.262	118.801	5947	119.17	1.656
40	Julien Andlauer	GT	117.479	3	37	117.456	117.479	118.239	4440		
51	Alessandro Pier Guidi	GT	119.216	89	60	119.077	119.186	119.792	7479		
51	Francesco Piovanel	GT	122.63	34	27	122.579	122.579	123.329	3378	121.62	3.537
51	Oswaldo Negri	GT	120.825	5	28	120.79	120.825	121.742	3452		
54	Francesco Castellacci	GT	120.12	61	30	120.12	120.12	120.812	3661		
54	Giancarlo Fisichella	GT	119.063	91	59	118.941	119.063	119.719	7139	121.04	2.859
54	Thomas Flohr	GT	122.011	36	26	121.539	121.539	122.578	3459		
55	David Perel	GT	119.604	10	32	119.562	119.604	120.03	3885		
55	Davide Rigon	GT	119.48	94	57	119.344	119.48	119.872	6876	120.11	0.57
55	Rino Mastronardi	GT	119.664	35	27	119.664	119.664	120.442	3466		
57	Come Ledogar	GT	119.288	62	59	119.156	119.279	119.825	7228		
57	Mikkel Jensen	GT	119.033	31	30	118.778	118.778	119.759	3693	120.55	2.314
57	Takeshi Kimura	GT	121.215	4	27	120.691	121.215	122.073	3390		
60	Allessio Rovera	GT	119.555	33	29	119.421	119.555	119.911	3553		
60	Johnny Laursen	GT	121.146	3	28	120.801	121.086	122.001	3482	120.43	2.09
60	Nicklas Nielsen	GT	119.052	93	59	118.889	118.946	119.368	7247		
66	Christian Hook	GT	123.47	47	28	122.98	123.216	123.779	3597		
66	Manuel Lauck	GT	120.696	4	29	120.546	120.696	121.262	3554	121.67	2.517
66	Patrick Kujala	GT	119.354	60	58	119.285	119.346	119.969	7108		
77	Satoshi Hoshino	GT	121.853	6	27	121.696	121.696	122.937	3379		
77	Tom Gamble	GT	119.711	29	29	119.624	119.711	120.746	3525	121.31	2.191
77	Tomonobu Fujii	GT	119.966	98	59	119.755	119.966	120.261	7299		
88	Alexander West	GT	120.863	38	26	120.821	120.863	121.714	3420		
88	Maxime Martin	GT	118.456	5	62	118.14	118.456	118.757	7447	120.04	2.957
88	Valetin Hasse-Clot	GT	118.79	63	28	118.666	118.71	119.645	3376		
89	Marvin Kirchhofer	GT	119.368	87	59	119.266	119.368	119.795	7409		
89	Michael Benham	GT	121.264	6	27	121.192	121.264	122.161	3346	120.77	2.366
89	Yuki Nemoto	GT	119.666	29	28	119.417		120.36	3396		
93	Antares Au	GT	119.76	41	30	119.529	119.76	120.777	3988		
93	Klaus Bachler	GT	118.036	99	48	117.998	117.998	118.802	5737	120.50	3.13
93	Steffen Görig	GT	121.117	4	37	120.902	121.117	121.932	4564		
95	Charlie Eastwood	GT	119.063	94	59	118.963	119.063	119.516	7312		
95	John Hartshorne	GT	123.338	13	28	122.946	123.338	123.765	3519	121.20	4.249
95	Oliver Hancock	GT	119.889	35	28	119.709	119.802	120.327	3388		
97	Ahmad Al Harthy	GT	120.099	8	28	119.864	120.099	120.887	3424		
97	Jonny Adam	GT	119.194	88	60	118.942	119.128	119.536	7458	120.36	1.351
97	Thomas Canning	GT	119.767	32	28	119.767	119.767	120.65	3409		
99	Alfred Renauer	GT	118.386	97	46	118.206	118.376	118.774	5583		
99	Ralf Bohn	GT	119.311	4	35	119.191	119.311	119.882	4241	119.32	1.108
99	Robert Renauer	GT	118.829	67	36	118.807	118.829	119.303	4443		





Driver Performance

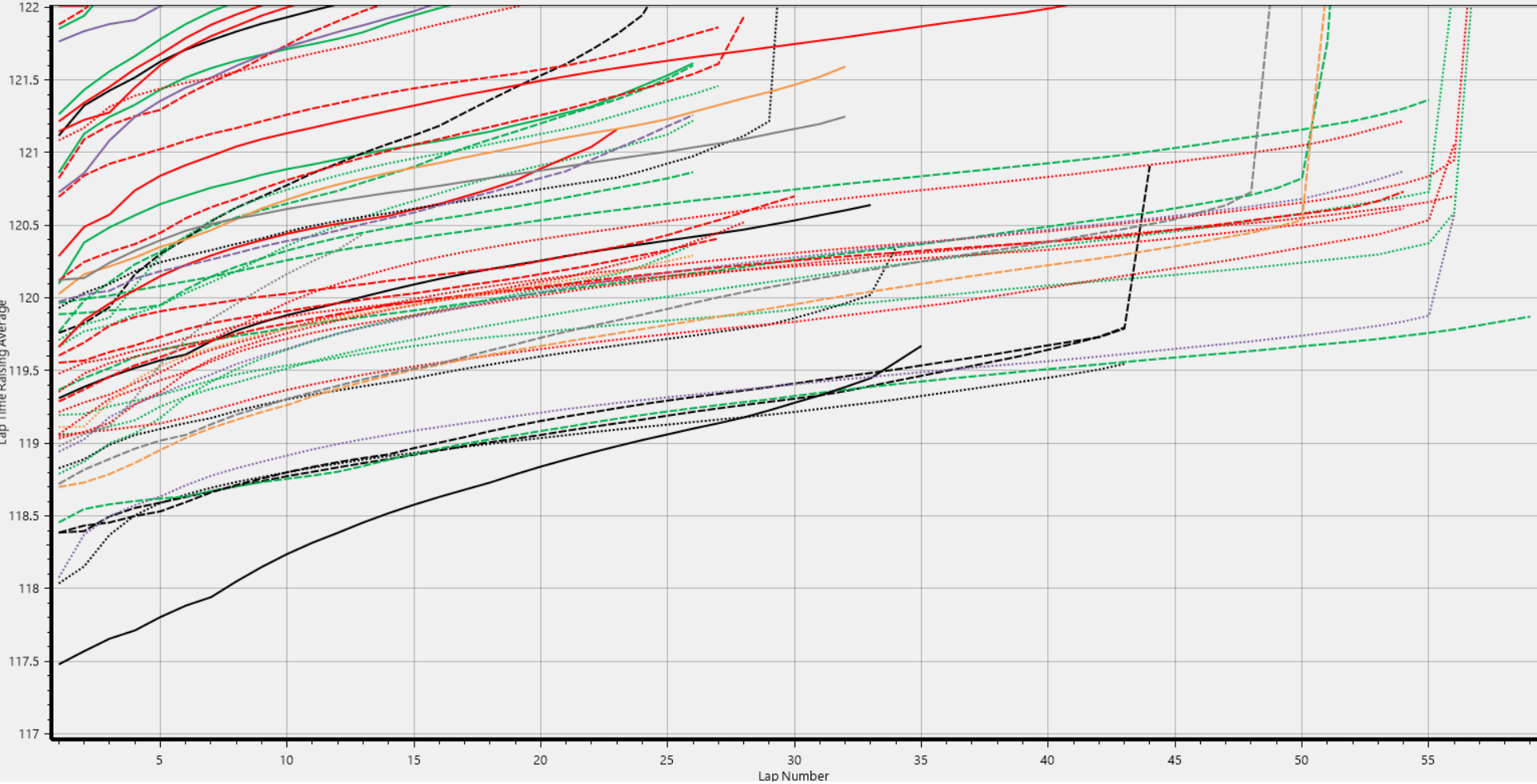
Number of drivers VS laptimes (Avg 10 best)





Driver Analysis

Lap Time Raising Average



Performance of fastest drivers of each make are balanced except POR a bit in front





Conclusion for Dubai

- Driver has large impact on final result and performance is very driver dependent
- Most cars are well balanced, within 0.5s on 100sec lap,
- As this is first race must take care not to over react, but season is very short
 - POR has one very fast driver that affects the average
 - POR top speed is balanced
- **Adjustments:**
 - → +20kg to POR GT3-050





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Contact

David HACHE

Simulation and Performance Technical Delegate

d.hache@lemans.org