

QUANTITATIVE METHODS FOR SPORT

Descriptives
Strategies
Economics

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Preview

An example of analysis post-race: the case of 2016 Monte-Carlo Grand Prix.

*The 2016 Grand Prix of Monaco was interesting for **climate variability**. If qualifications were held in dry and warm weather, the race was preceded by heavy rain with result of having to start the race with the safety car. **Tyres choices and length of stints** have definitely influenced the final result.*

You can manage your data into spreadsheets with many information together.

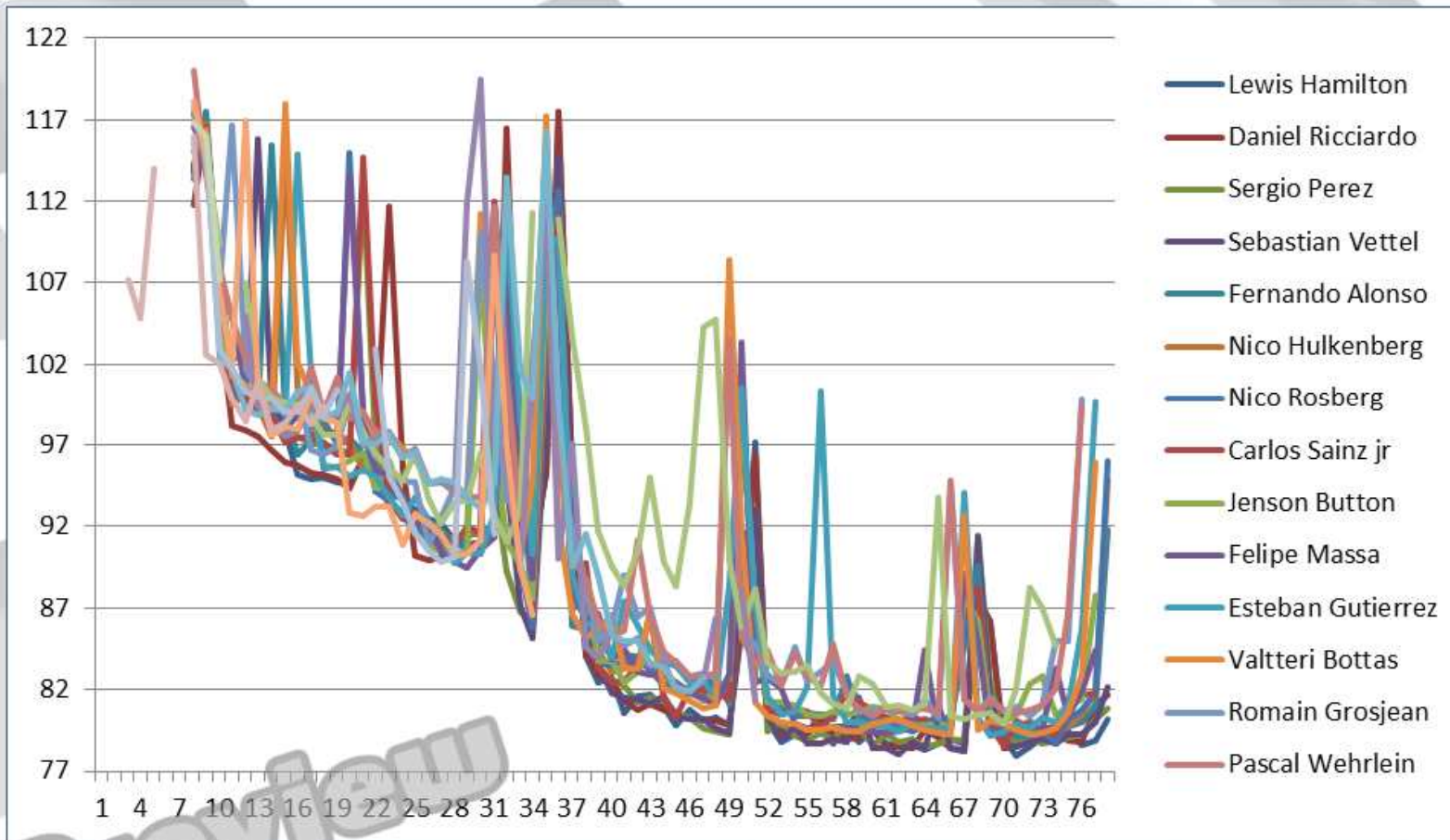
wet	color
intermediate	green
hard	yellow
medium	orange
soft	red
supersoft	purple
ultrasoft	blue

arrival	driver	11	12	13	14	15	16	17	18	19	20
1	Lewis Hamilton	100,230	100,517	98,934	98,805	97,849	95,194	94,870	94,971	94,682	94,575
2	Daniel Ricciardo	96,140	97,869	97,561	96,677	95,946	95,784	95,312	95,150	94,875	94,360
3	Sergio Perez	99,960	99,819	99,199	98,880	97,700	97,529	97,041	97,068	96,734	96,483
4	Sebastian Vettel	99,849	99,864	115,825	99,563	98,014	98,834	98,061	98,100	97,524	97,237
5	Fernando Alonso	100,353	99,583	99,448	115,471	98,863	96,349	97,343	98,582	97,085	97,413
6	Nico Hulkenberg	99,492	100,215	99,401	97,499	114,564	100,572	98,126	97,991	97,654	97,216
7	Nico Rosberg	99,852	100,642	99,106	98,922	97,478	100,096	97,461	96,986	96,397	114,961
8	Carlos Sainz jr	99,776	99,955	99,166	98,737	97,110	97,455	97,501	97,146	96,471	96,389
9	Jenson Button	102,327	102,491	101,191	99,879	99,689	98,203	99,873	95,726	95,630	95,977
10	Felipe Massa	104,935	100,533	99,818	99,083	99,143	98,710	98,404	97,918	97,641	113,600
11	Esteban Gutierrez	101,586	100,728	99,552	99,695	98,891	114,901	101,039	95,580	95,601	95,071
12	Valtteri Bottas	101,286	100,721	99,945	99,290	117,941	102,125	100,112	98,958	100,674	99,418
13	Romain Grosjean	116,650	101,740	100,312	99,705		100,364	96,695	96,414	96,922	99,640

Preview

2nd STEP

Representing data



A data-table is not the better way to see data. We need graphs to take a look and watch the evidences.

3rd STEP

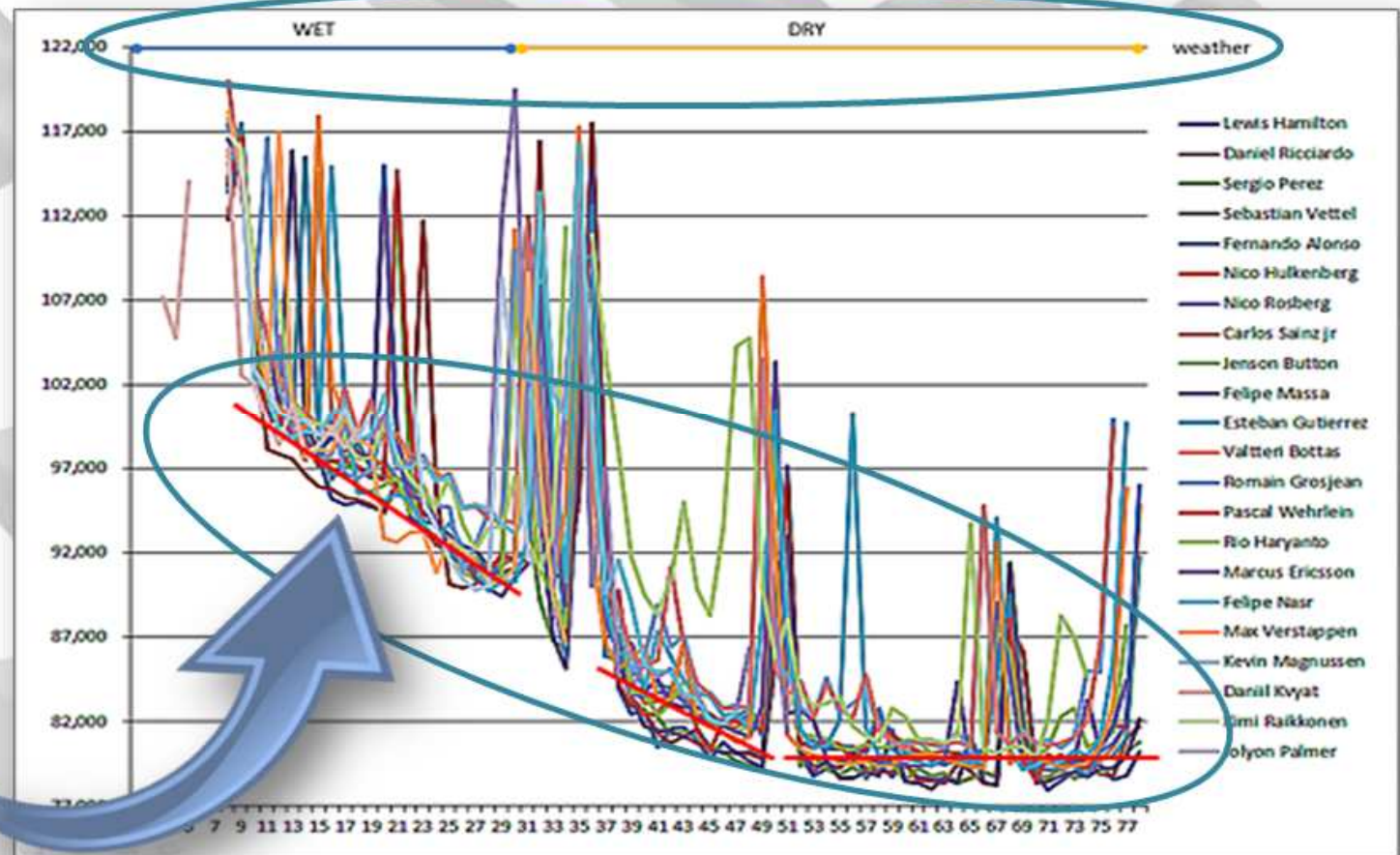
Analysis

We suggest first to analyze graphs ...

Identification of parts of the race (clustering), and identification of tendencies (trends) of each part

Very interesting this one because it's at the beginning of race and has a high slope

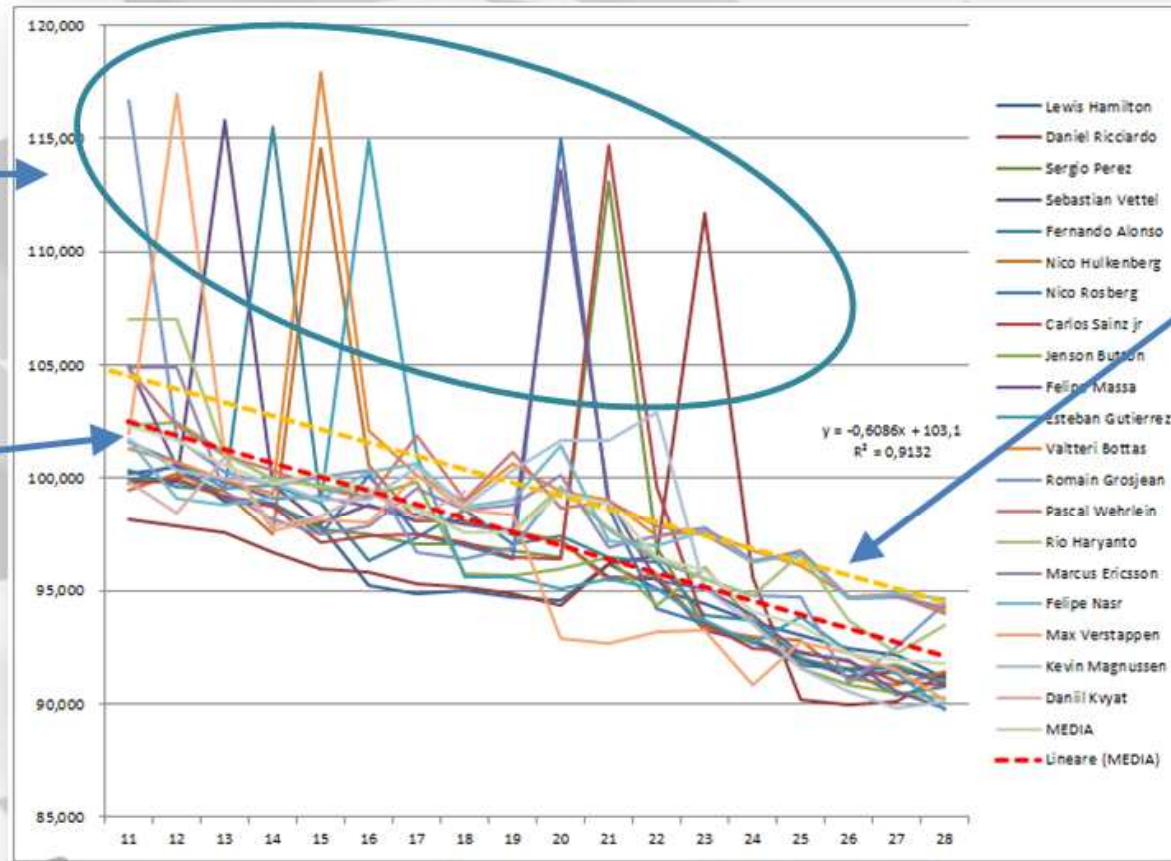
Weather during the race



3rd STEP Analysis

Too much peaks

Regression line
with an R^2 equal
to 0,91 (very
good fitting)



A threshold
build on the
basis of
regression line

Preview