

# Projet Traitement Numérique

Rédacteur :

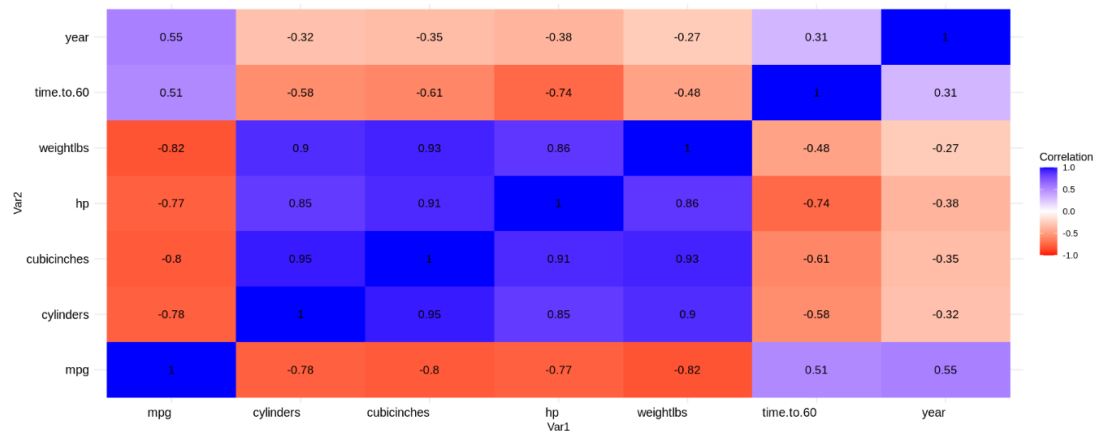
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## 1 Figure 1 : Tableau de corrélation des variables quantitatives numériques

	mpg	cylinders	cubicinches	hp	weightlbs	time.to.60	year
mpg	1.0000000	-0.7767099	-0.8036361	-0.7749050	-0.8246487	0.5090697	0.5504405
cylinders	-0.7767099	1.0000000	0.9512776	0.8451547	0.8954644	-0.5781607	-0.3222394
cubicinches	-0.8036361	0.9512776	1.0000000	0.9060188	0.9295842	-0.6084126	-0.3500258
hp	-0.7749050	0.8451547	0.9060188	1.0000000	0.8608429	-0.7448731	-0.3838692
weightlbs	-0.8246487	0.8954644	0.9295842	0.8608429	1.0000000	-0.4808463	-0.2689919
time.to.60	0.5090697	-0.5781607	-0.6084126	-0.7448731	-0.4808463	1.0000000	0.3123106
year	0.5504405	-0.3222394	-0.3500258	-0.3838692	-0.2689919	0.3123106	1.0000000

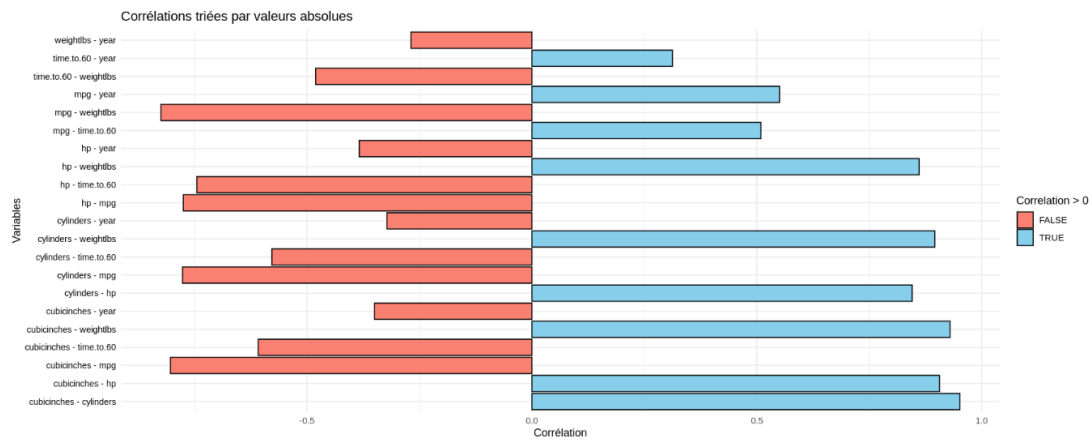
## 2 Figure 2 : Heatmap de corrélation



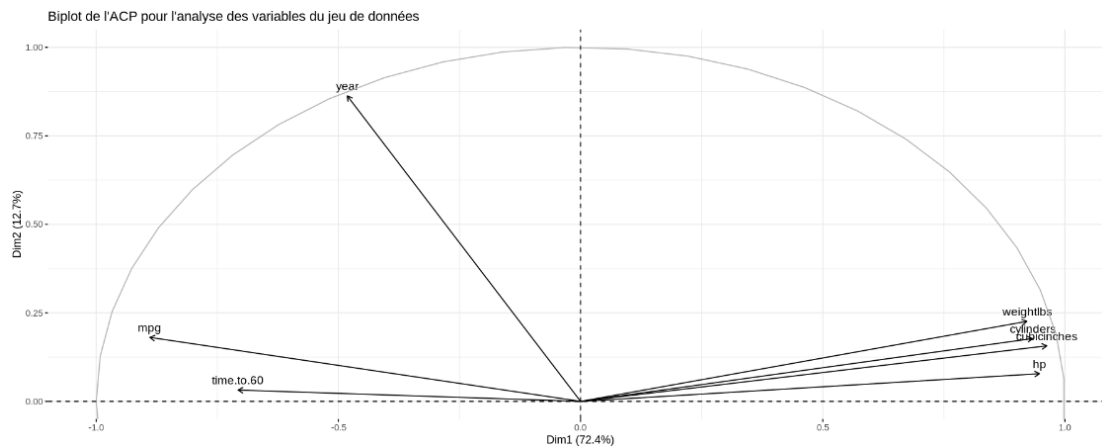
### 3 Figure 3 : Corrélations triée par valeurs absolues

	Var1	Var2	Correlation
1	cubicinches	cylinders	0.9512776
2	cubicinches	weightlbs	0.9295842
3	cubicinches	hp	0.9060188
4	cylinders	weightlbs	0.8954644
5	hp	weightlbs	0.8608429
6	cylinders	hp	0.8451547
7	mpg	weightlbs	-0.8246487
8	cubicinches	mpg	-0.8036361
9	cylinders	mpg	-0.7767099
10	hp	mpg	-0.7749050
11	hp	time.to.60	-0.7448731
12	cubicinches	time.to.60	-0.6084126
13	cylinders	time.to.60	-0.5781607
14	mpg	year	0.5504405
15	mpg	time.to.60	0.5090697
16	time.to.60	weightlbs	-0.4808463
17	hp	year	-0.3838692
18	cubicinches	year	-0.3500258
19	cylinders	year	-0.3222394
20	time.to.60	year	0.3123106
21	weightlbs	year	-0.2689919

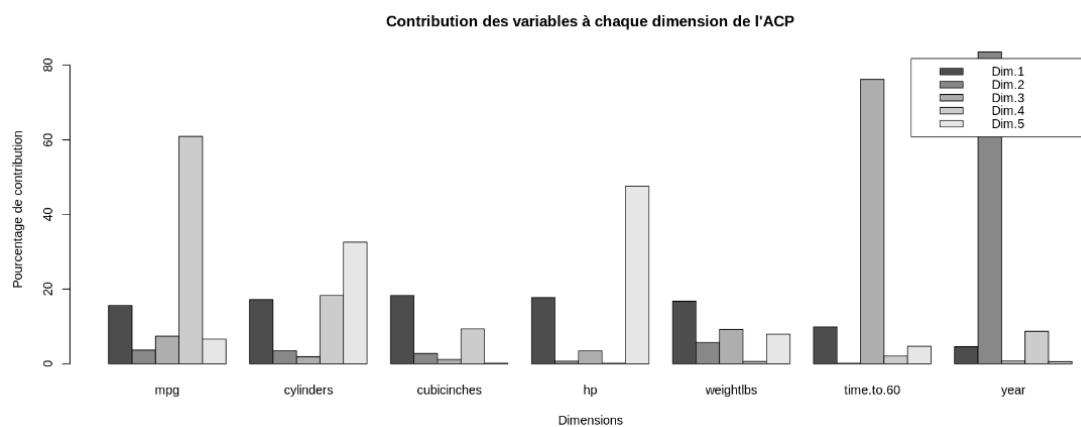
#### 4 Figure 4 : Diagramme en barres des corrélations triées par valeurs absolues



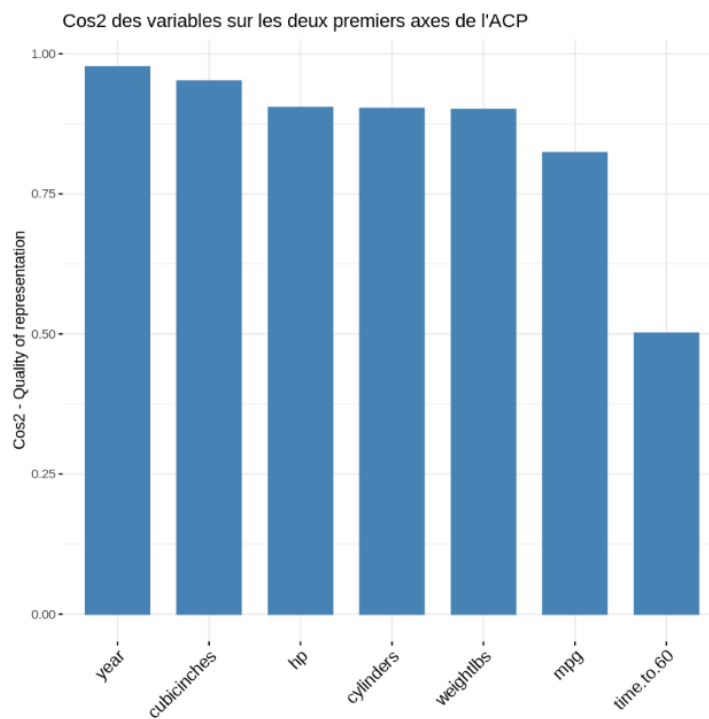
#### 5 Figure 5 : Variables sur le premier plan factoriel



## 6 Figure 6 : Contribution des variables à chaque dimension de l'ACP



## 7 Figure 7 : Cos2 des variables sur le premier plan factoriel de l'ACP



**8 Figure 8 : Visualisation des Clusters de Brand de Voitures dans l'Espace Factoriel de l'ACP**

