Annuler le signal des variables pour en déterminer le nombre de facteurs communs (SUITE)

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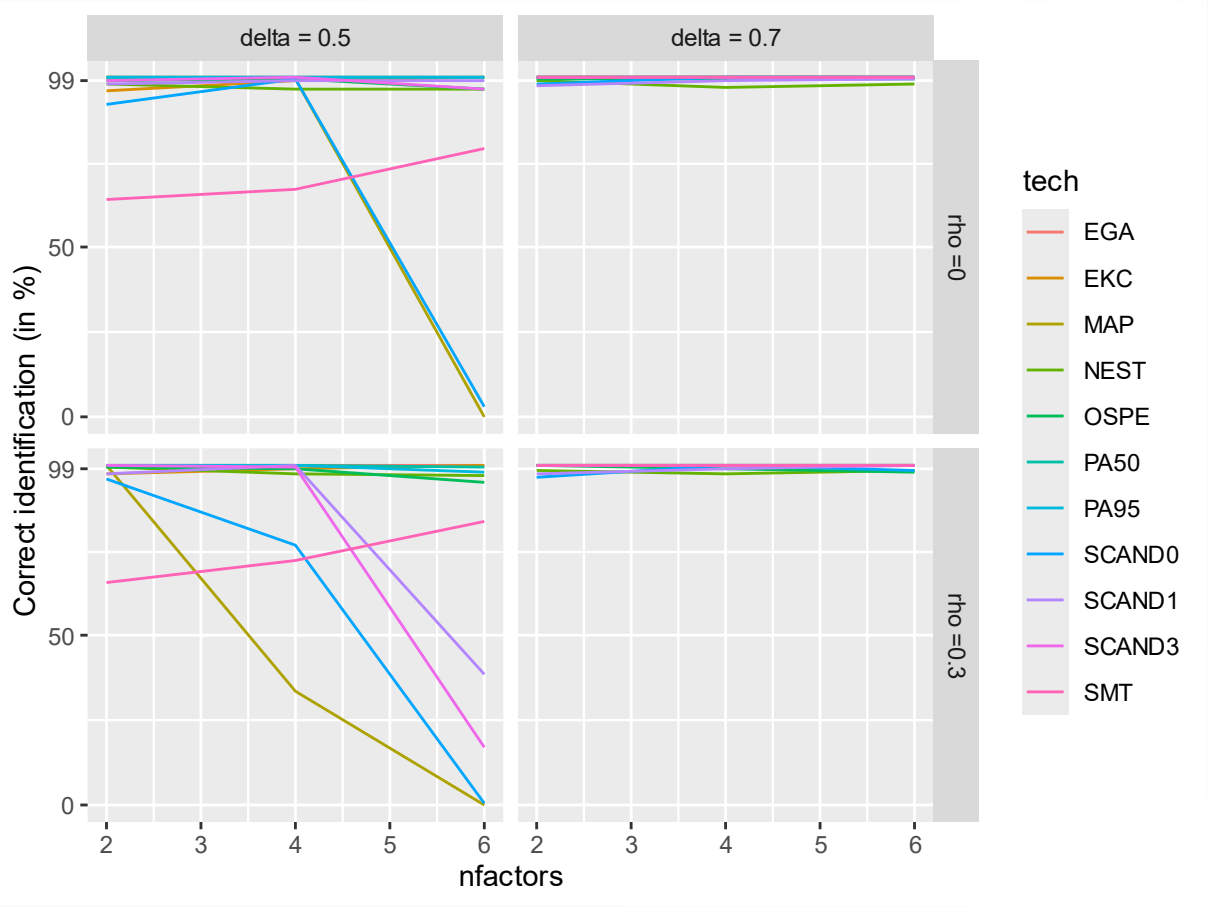
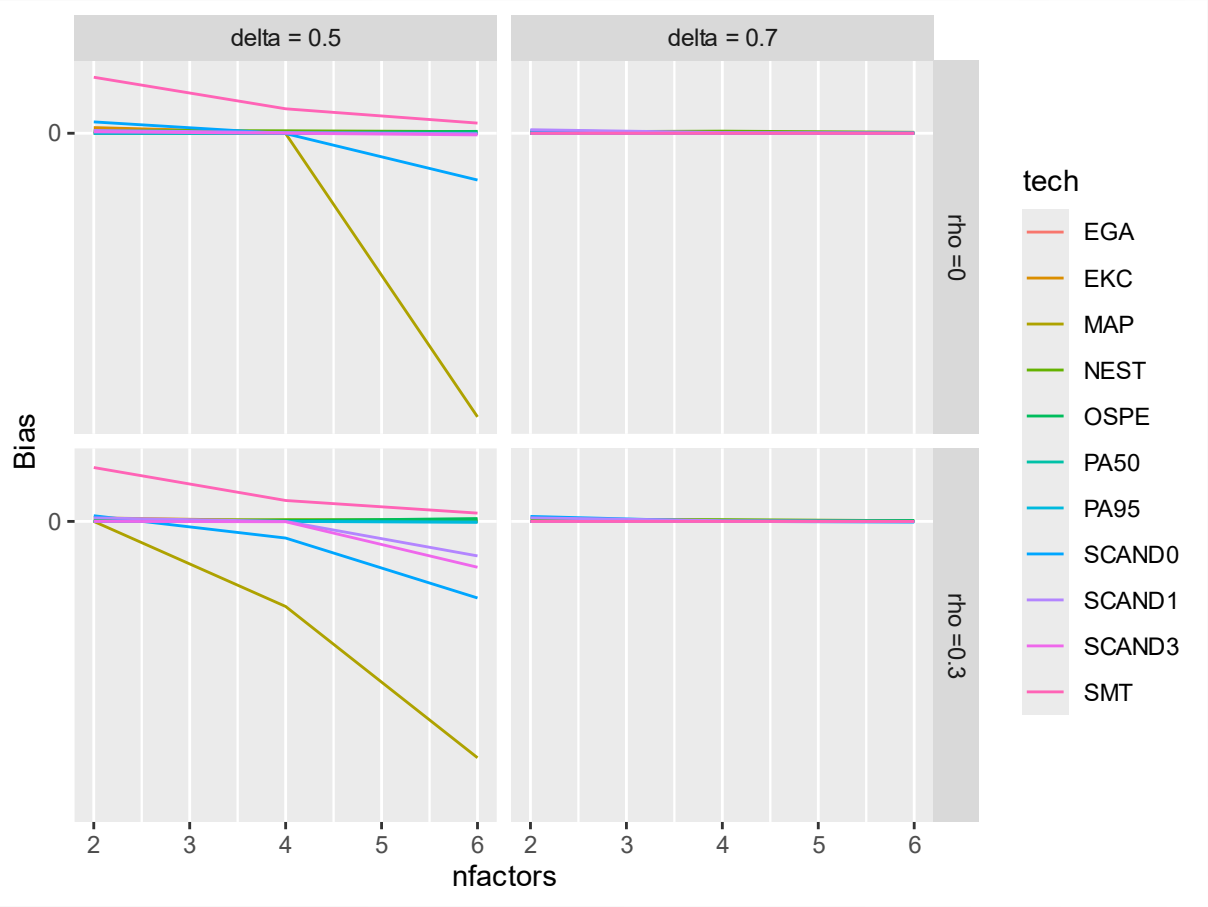
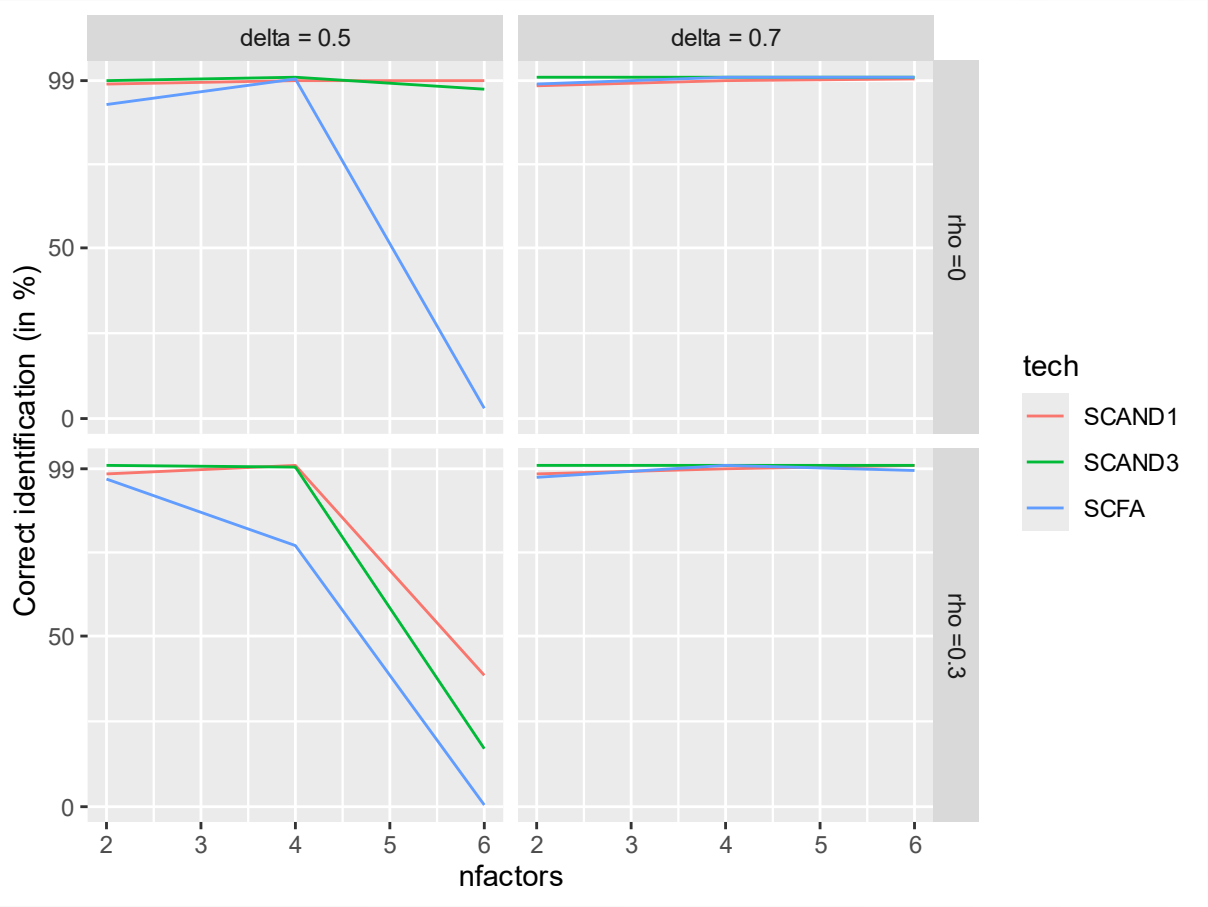
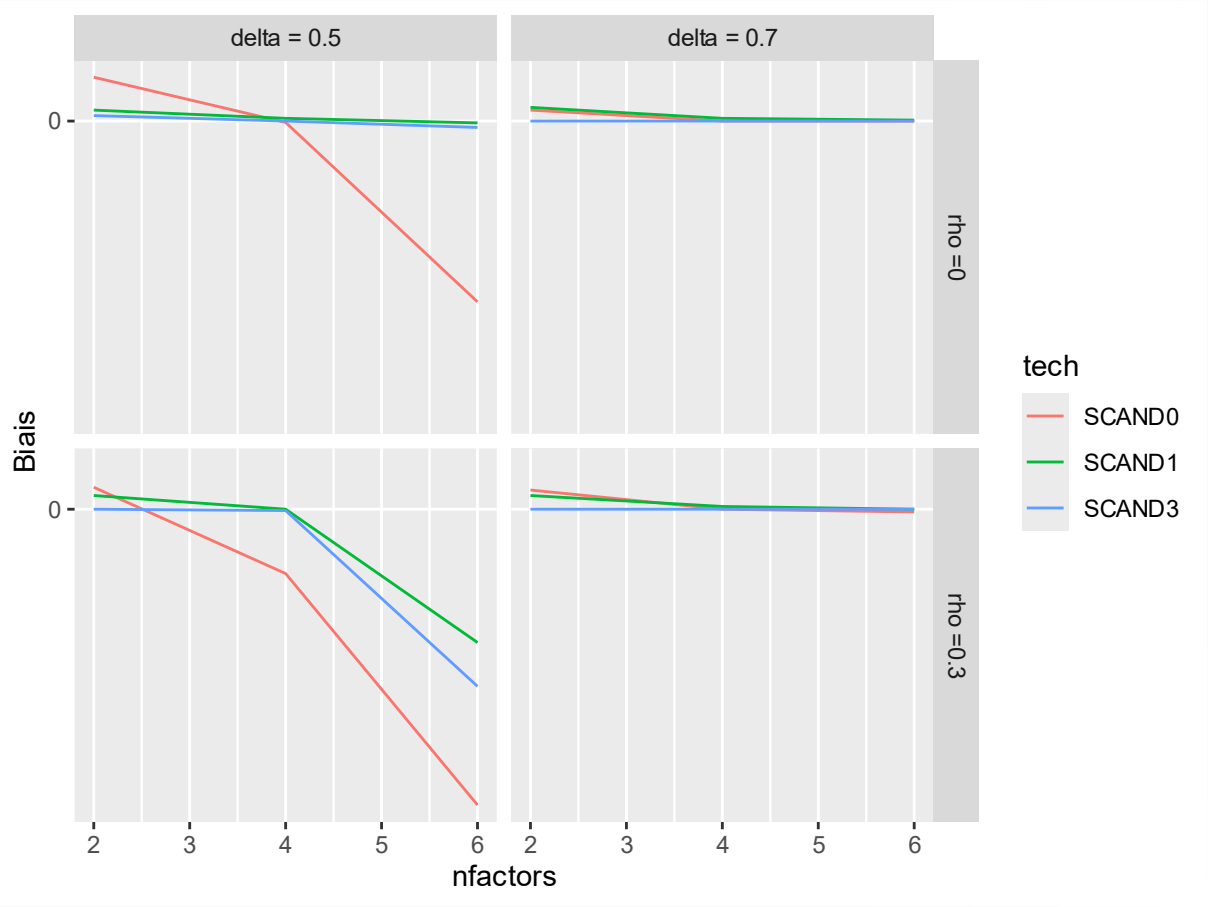
Simulations

- Simulation Monte-Carlo
  - Extraits de Caron (2025)
  - Loadings (delta) : .5 et .7
  - Corrélation interfacteur (rho) : 0 et .3
  - Taille de l'échantillon : 480
  - Nombre de variable 24
  - Nombre de facteurs (nfactors) : 2, 4 et 6
  - Compétiteurs : PA50, PA95, MAP, NEST, OSPE, EGA, EKC, SMT
  - Algorithme : SCAND0, SCAND1, SCAND3

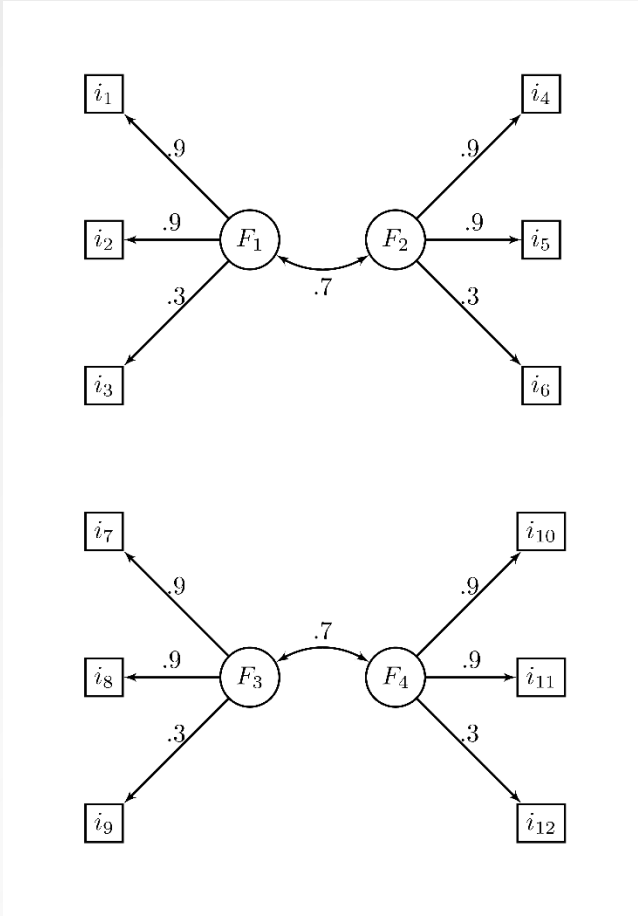

delta = 0.5
delta = 0.7
rho =0
rho =0.3
Correct identification (in %)
99
50
0
2
3
4
5
6
nfactors
tech
EGA
EKC
MAP
NEST
OSPE
PA50
PA95
SCAND0
SCAND1
SCAND3
SMT


delta = 0.5
delta = 0.7
rho =0
rho =0.3
Bias
0
0
2
3
4
5
6
nfactors
tech
EGA
EKC
MAP
NEST
OSPE
PA50
PA95
SCAND0
SCAND1
SCAND3
SMT


delta = 0.5
delta = 0.7
rho =0
rho =0.3
Correct identification (in %)
99
50
0
2
3
4
5
6
nfactors
tech
SCAND1
SCAND3
SCFA

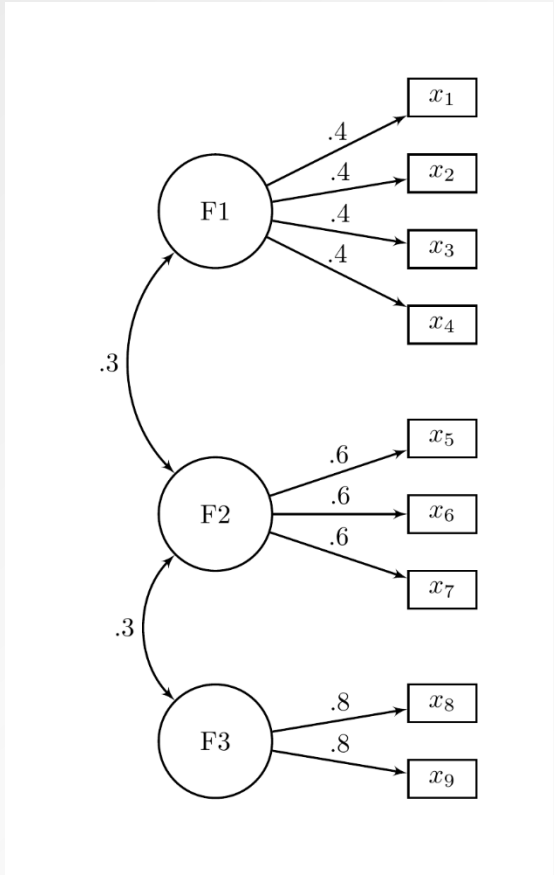

delta = 0.5
delta = 0.7
rho =0
rho =0.3
Biais
0
0
2
3
4
5
6
nfactors
tech
SCAND0
SCAND1
SCAND3

Exemple 1



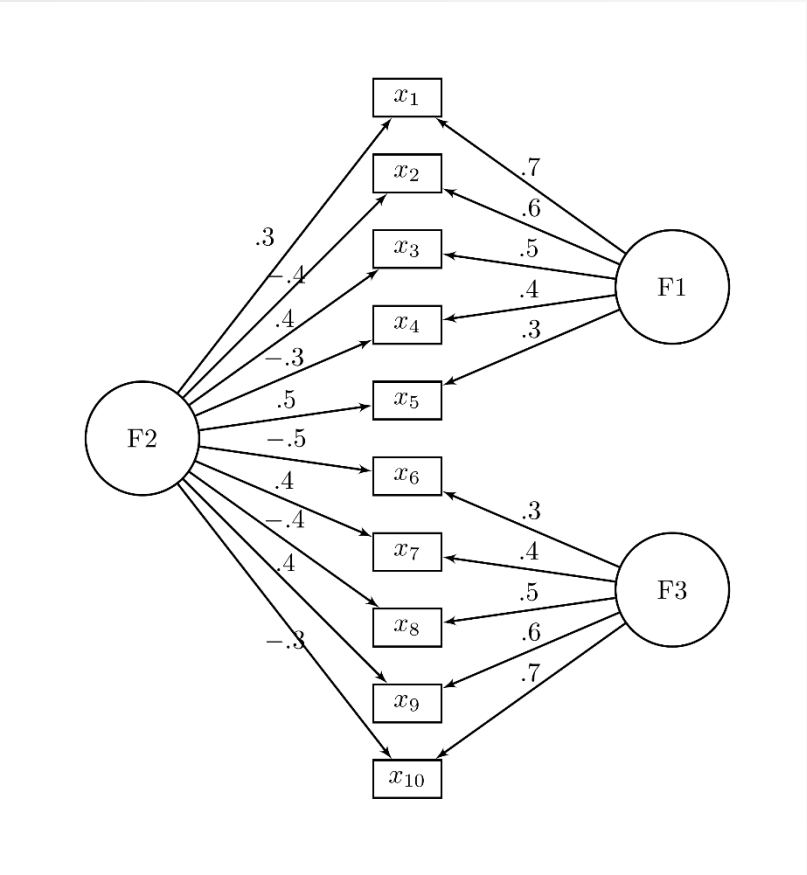
Méthode	nfactors
PA95	2
PA50	2
MAP	2
EKC	3
SMT	2
NEST	**2**
OSPE	**4**
EGA	**4**
SCAND0	6
SCAND1	**4**
SCAND3	3

Exemple 2



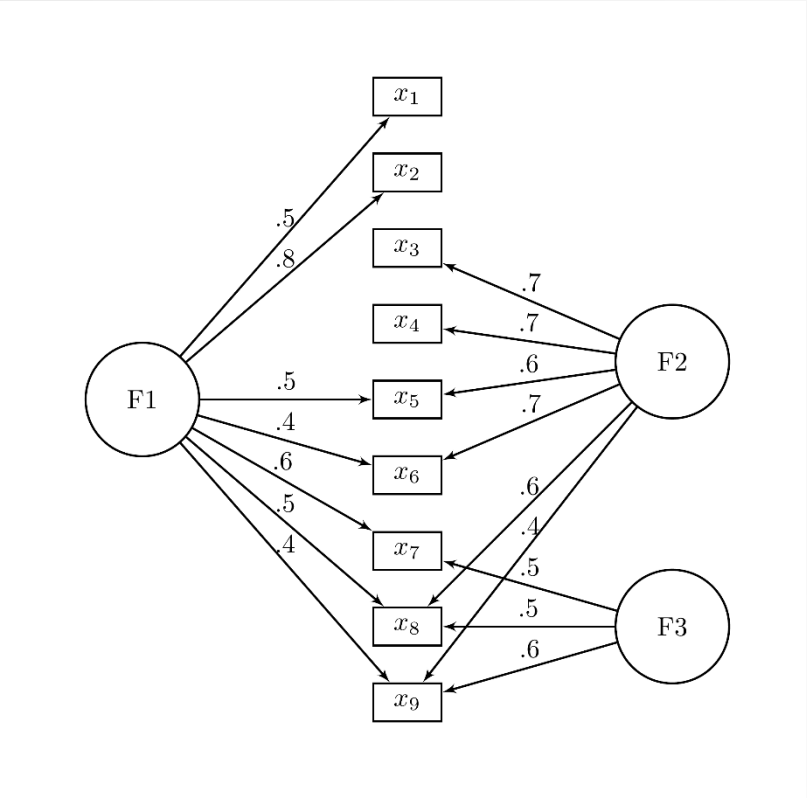
Méthode	Nfactors
PA95	**3**
PA50	**3**
MAP	0
EKC	**3**
SMT	2
NEST	**3**
OSPE	**3**
EGA	**3**
SCAND0	4
SCAND1	**2**
SCAND3	2

Exemple 3



Méthode	Nfactors
PA95	**3**
PA50	**3**
MAP	1
EKC	**3**
SMT	2
NEST	**3**
OSPE	**3**
EGA	**2**
SCAND0	5
SCAND1	**2**
SCAND3	2

Exemple 4



Méthode	Nfactors
PA95	2
PA50	2
MAP	2
EKC	2
SMT	2
NEST	**3**
OSPE	**3**
EGA	**3**
SCAND0	4
SCAND1	**3**
SCAND3	2

Discussion

- Développement des tests pour structure oblique (bifactorielle ou interfactorielle)
- Package R : SignalCancellation

```
remotes::install_github(repo = "quantmeth/SignalCancellation")
library(SignalCancellation)
```