

# Simulation results

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## ResNMTF

The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

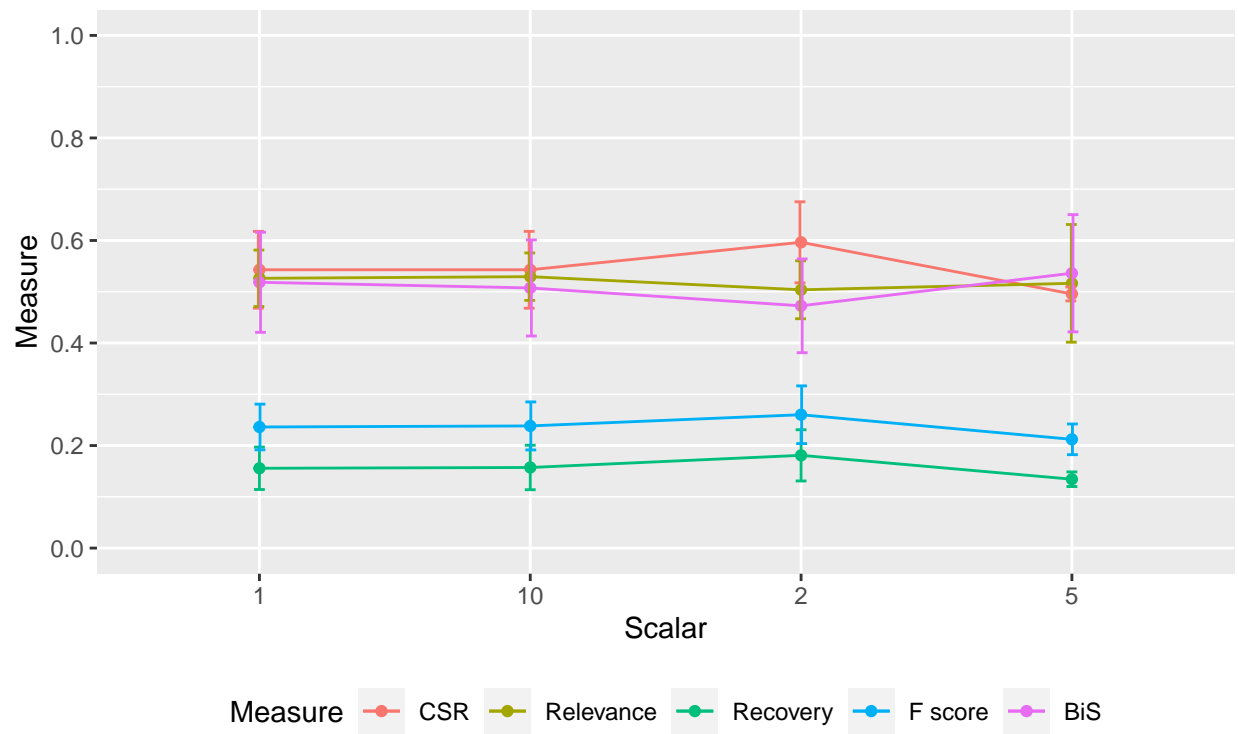


Figure 1: Simulation results for ResNMTF only.

	Scalar			
	1	2	5	10
F score	0.2362 (0.0446)	0.2601 (0.0563)	0.2121 (0.0299)	0.2383 (0.0468)
Relevance	0.5263 (0.0550)	0.5038 (0.0565)	0.5164 (0.1148)	0.5294 (0.0463)
Recovery	0.1557 (0.0414)	0.1809 (0.0500)	0.1343 (0.0143)	0.1572 (0.0434)
CSR	0.5429 (0.0749)	0.5964 (0.0791)	0.4957 (0.0136)	0.5429 (0.0749)
BiS	0.5185 (0.0976)	0.4726 (0.0915)	0.5361 (0.1143)	0.5074 (0.0937)

<sup>a</sup> 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

## Comparisons

### Relevance

The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

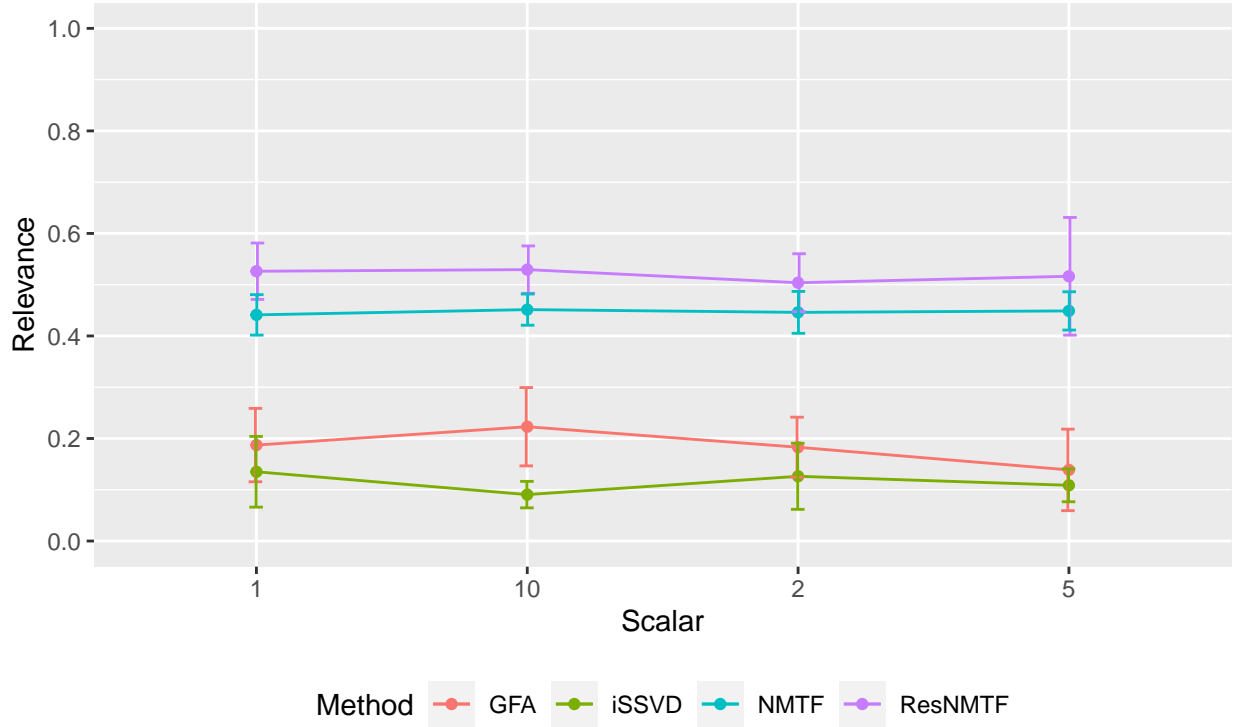


Figure 2: Relevance scores for all methods.

	Scalar			
	1	2	5	10
ResNMTF	<b>0.5263 (0.0550)</b>	<b>0.5038 (0.0565)</b>	<b>0.5164 (0.1148)</b>	<b>0.5294 (0.0463)</b>
GFA	0.1872 (0.0716)	0.1830 (0.0586)	0.1387 (0.0795)	0.2230 (0.0764)
iSSVD	0.1351 (0.0690)	0.1262 (0.0645)	0.1087 (0.0321)	0.0905 (0.0258)
NMTF	0.4411 (0.0395)	0.4460 (0.0408)	0.4488 (0.0374)	0.4514 (0.0304)

<sup>a</sup> Relevance scores. 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

	Scalar			
	1	2	5	10
ResNMTF	0.1557 (0.0414)	0.1809 (0.0500)	0.1343 (0.0143)	0.1572 (0.0434)
GFA	<b>0.3879 (0.1507)</b>	<b>0.3686 (0.1368)</b>	0.2867 (0.1750)	<b>0.4566 (0.1559)</b>
iSSVD	0.1799 (0.0270)	0.1807 (0.0312)	0.1771 (0.0294)	0.1753 (0.0342)
NMTF	0.3064 (0.0653)	0.2985 (0.0718)	<b>0.3084 (0.0669)</b>	0.3063 (0.0655)

<sup>a</sup> Recovery scores. 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

## Recovery

### The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

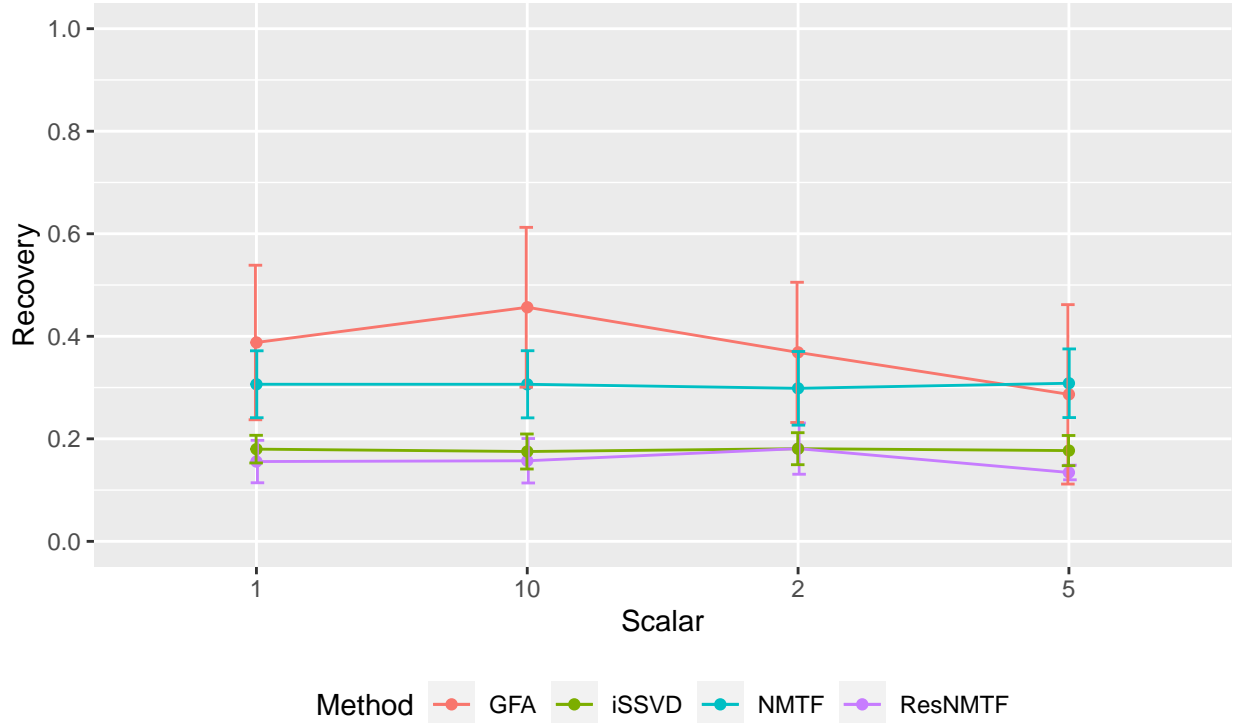


Figure 3: Recovery scores for all methods.

	Scalar			
	1	2	5	10
ResNMTF	0.2362 (0.0446)	0.2601 (0.0563)	0.2121 (0.0299)	0.2383 (0.0468)
GFA	0.2522 (0.0963)	0.2440 (0.0819)	0.1867 (0.1093)	0.2994 (0.1019)
iSSVD	0.1491 (0.0451)	0.1438 (0.0463)	0.1336 (0.0295)	0.1188 (0.0304)
NMTF	<b>0.3580 (0.0552)</b>	<b>0.3516 (0.0660)</b>	<b>0.3625 (0.0576)</b>	<b>0.3624 (0.0563)</b>

<sup>a</sup> F scores. 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

## F score

### The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

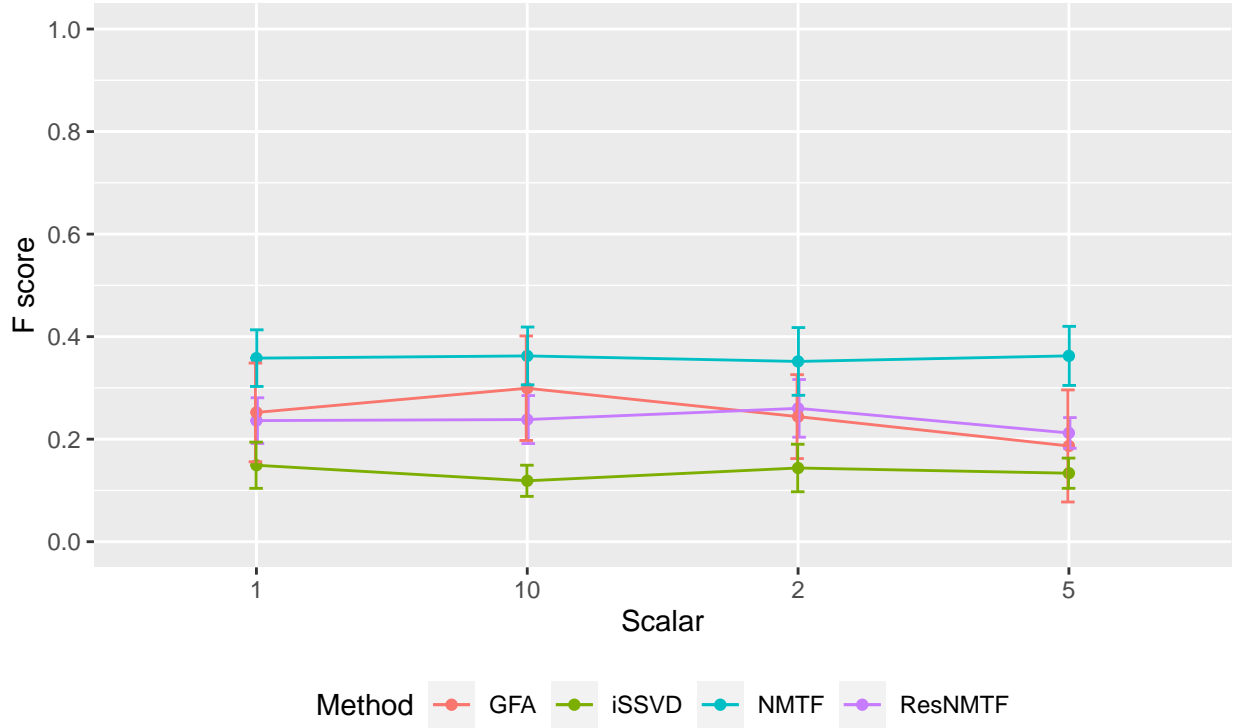


Figure 4: F scores for all methods.

	Scalar			
	1	2	5	10
ResNMTF	0.5185 (0.0976)	0.4726 (0.0915)	0.5361 (0.1143)	0.5074 (0.0937)
GFA	-0.2608 (0.0589)	-0.2503 (0.0478)	-0.2461 (0.0778)	-0.3172 (0.1321)
iSSVD	<b>-0.0588 (0.0615)</b>	<b>-0.0621 (0.0518)</b>	<b>-0.0806 (0.0842)</b>	<b>-0.0784 (0.0786)</b>
NMTF	0.3241 (0.0810)	0.3553 (0.0812)	0.3147 (0.1023)	0.3119 (0.0968)

<sup>a</sup> BiS scores. 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

## BiS

### The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

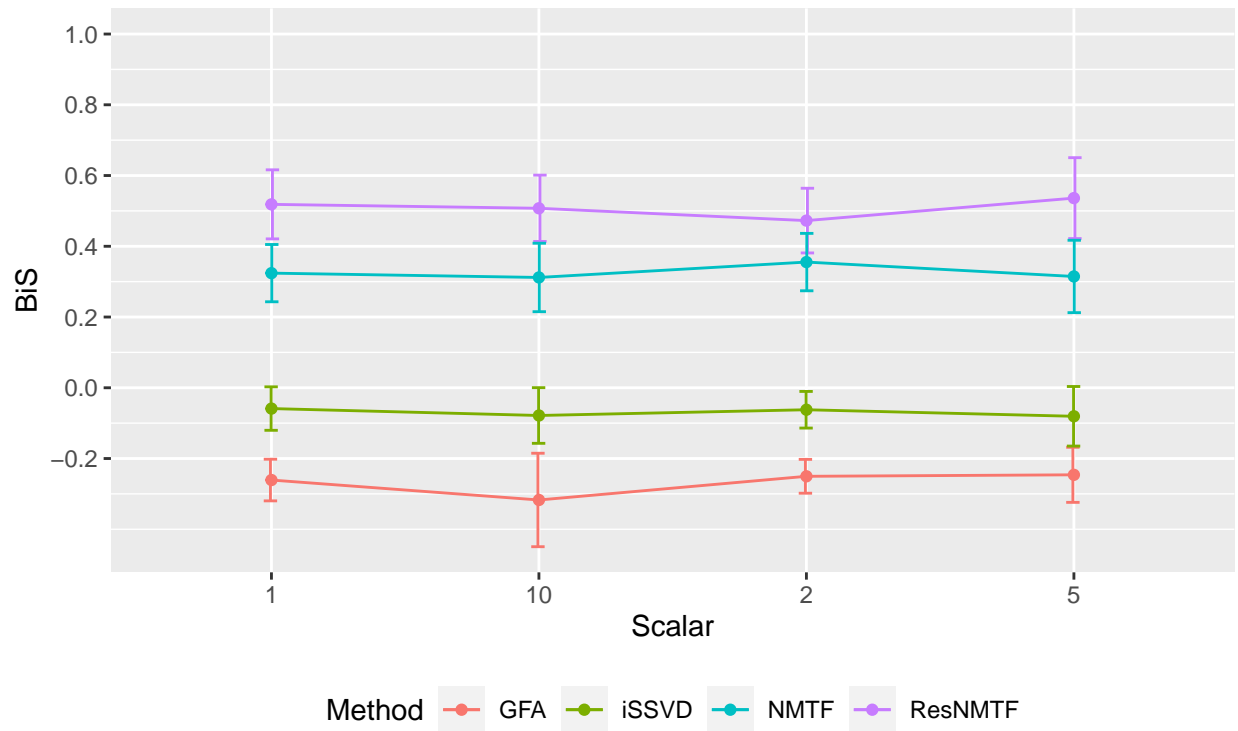


Figure 5: BiSilhouette scores for all methods.

	Scalar			
	1	2	5	10
ResNMTF	0.5429 (0.0749)	0.5964 (0.0791)	0.4957 (0.0136)	0.5429 (0.0749)
GFA	0.6429 (0.0000)	0.6429 (0.0000)	0.6453 (0.0078)	0.6429 (0.0000)
iSSVD	0.8330 (0.0790)	0.7973 (0.0758)	0.8320 (0.0298)	0.7759 (0.0697)
NMTF	<b>0.8393 (0.0898)</b>	<b>0.8205 (0.0865)</b>	<b>0.8330 (0.0842)</b>	<b>0.8268 (0.0776)</b>

<sup>a</sup> CSR scores. 2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

## CSR

### The effect of increasing the scale factor

2 views, 4 biclusters,  $\phi = 200$ , 10 repetitions.

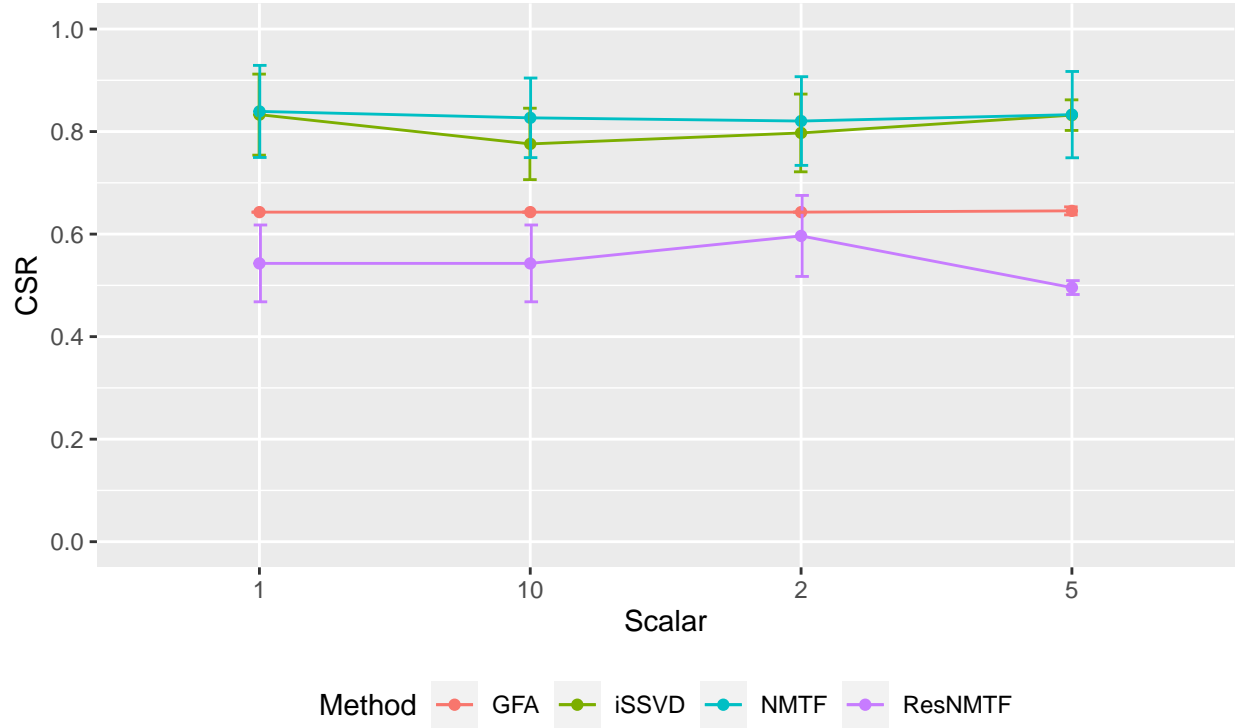


Figure 6: CSR scores for all methods.

## Extrinsic measures

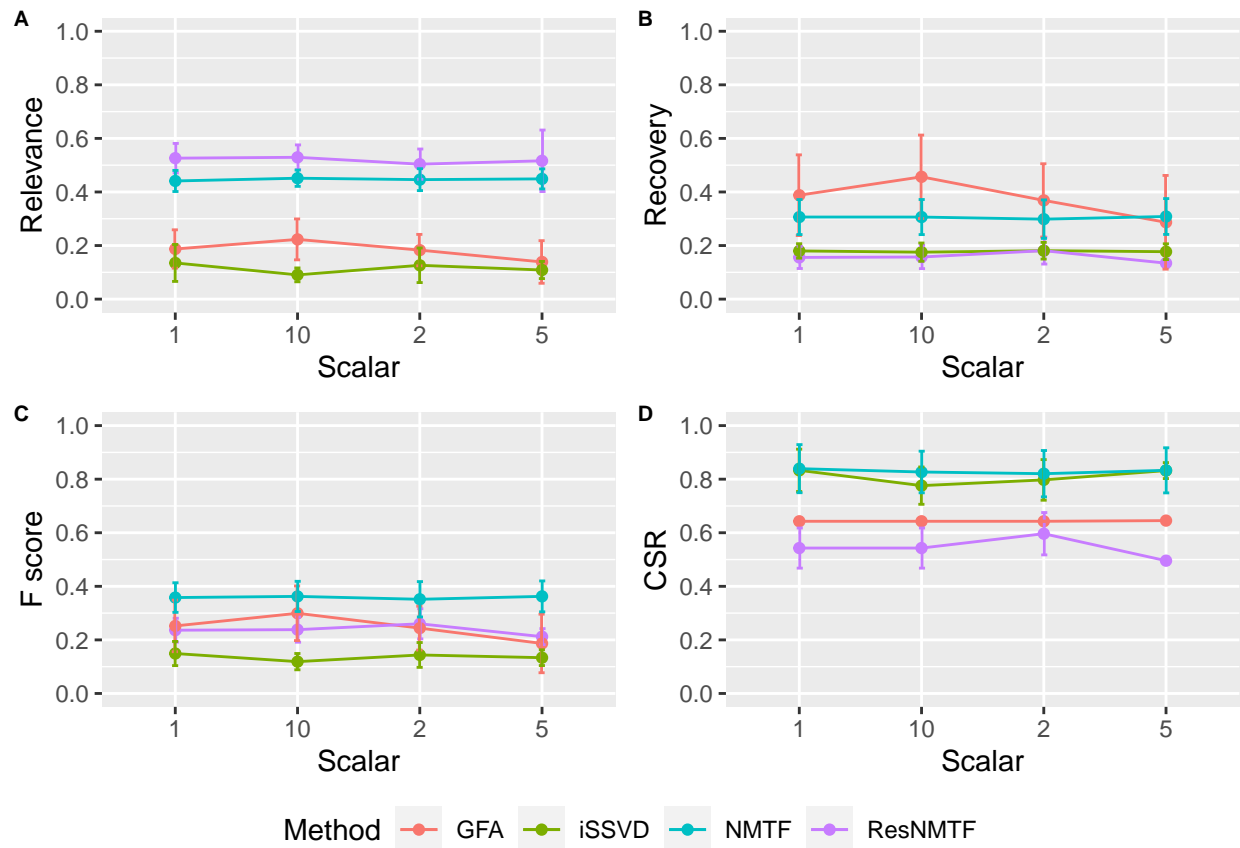


Figure 7: Simulation results for all methods.

## Correlation

	BiS	CSR
F score	0.3882248	0.1242941
Relevance	0.9205942	-0.3513052
Recovery	-0.5234413	0.1555777

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<b>Relevance</b>				
ResNMTF	0.5263 (0.0550)	0.5038 (0.0565)	0.5164 (0.1148)	0.5294 (0.0463)
GFA	0.1872 (0.0716)	0.1830 (0.0586)	0.1387 (0.0795)	0.2230 (0.0764)
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NMTF	0.4411 (0.0395)	0.4460 (0.0408)	0.4488 (0.0374)	0.4514 (0.0304)
<b>Recovery</b>				
ResNMTF	0.1557 (0.0414)	0.1809 (0.0500)	0.1343 (0.0143)	0.1572 (0.0434)
GFA	0.3879 (0.1507)	0.3686 (0.1368)	0.2867 (0.1750)	0.4566 (0.1559)
iSSVD	0.1799 (0.0270)	0.1807 (0.0312)	0.1771 (0.0294)	0.1753 (0.0342)
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iSSVD	0.1491 (0.0451)	0.1438 (0.0463)	0.1336 (0.0295)	0.1188 (0.0304)
NMTF	0.3580 (0.0552)	0.3516 (0.0660)	0.3625 (0.0576)	0.3624 (0.0563)
<b>BiS</b>				
ResNMTF	0.5185 (0.0976)	0.4726 (0.0915)	0.5361 (0.1143)	0.5074 (0.0937)
GFA	-0.2608 (0.0589)	-0.2503 (0.0478)	-0.2461 (0.0778)	-0.3172 (0.1321)
iSSVD	-0.0588 (0.0615)	-0.0621 (0.0518)	-0.0806 (0.0842)	-0.0784 (0.0786)
NMTF	0.3241 (0.0810)	0.3553 (0.0812)	0.3147 (0.1023)	0.3119 (0.0968)
<b>CSR</b>				
ResNMTF	0.5429 (0.0749)	0.5964 (0.0791)	0.4957 (0.0136)	0.5429 (0.0749)
GFA	0.6429 (0.0000)	0.6429 (0.0000)	0.6453 (0.0078)	0.6429 (0.0000)
iSSVD	0.8330 (0.0790)	0.7973 (0.0758)	0.8320 (0.0298)	0.7759 (0.0697)
NMTF	0.8393 (0.0898)	0.8205 (0.0865)	0.8330 (0.0842)	0.8268 (0.0776)

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