

**# example -- weighted MDS model in R: smacofIndDiff**

**winedat**

> winedat

\$`1`

	Jurtschitsch Chardonnay	Ziniel Chardonnay	Markowitsch Chardonnay	
Ritinitis Noble Retsina				
Ziniel Chardonnay	2.000000			
Markowitsch Chardonnay	2.236068	3.605551		
Ritinitis Noble Retsina	1.000000	1.732051		2.000000
Retsina	4.690416	3.162278		
6.557439	4.582576			
Krems Chardonnay	2.645751	2.236068		
4.690416	2.828427			
Castel Nova Chardonnay	3.741657	2.449490		
5.567764	3.605551			
	Retsina	Krems Chardonnay		
Ziniel Chardonnay				
Markowitsch Chardonnay				
Ritinitis Noble Retsina				
Retsina				
Krems Chardonnay	2.645751			
Castel Nova Chardonnay	2.000000	1.732051		

<plus 9 more subjects' data..>

**wineWMDS<-smacofIndDiff(winedat)**

> **wineWMDS**

Call: smacofIndDiff(delta = winedat)

Model: Three-way SMACOF

Number of objects: 7

Stress-1 value: 0.322

Number of iterations: 60

# try: str(wineWMDS)

wineWMDS\$delta

wineWMDS\$stress

wineWMDS\$conf

wineWMDS\$gspace

wineWMDS\$cweights

wineWMDS\$weightmat

wineWMDS\$ndim

wineWMDS\$model

```
> wineWMD$stress
```

```
[1] 0.3221801
```

```
> wineWMD$conf
```

```
$`1`
```

	D1	D2
Jurtschitsch Chardonnay	-0.266649418	0.53196673
Ziniel Chardonnay	0.001397417	0.75119866
Markowitsch Chardonnay	-0.108244969	0.30122488
Ritinitis Noble Retsina	0.380715251	0.09461899
Retsina	0.358224991	-0.78906281
Krems Chardonnay	-0.259708163	-0.27744331
Castel Nova Chardonnay	-0.105735109	-0.61250315

```
$`2`
```

	D1	D2
Jurtschitsch Chardonnay	-0.649608171	0.19794089
Ziniel Chardonnay	0.003404372	0.27951547
Markowitsch Chardonnay	-0.263705118	0.11208355
Ritinitis Noble Retsina	0.927494011	0.03520703
Retsina	0.872703504	-0.29360444
Krems Chardonnay	-0.632697969	-0.10323460
Castel Nova Chardonnay	-0.257590627	-0.22790790

```
$`3`
```

	D1	D2
Jurtschitsch Chardonnay	-0.621362425	0.24269280
Ziniel Chardonnay	0.003256345	0.34271035
Markowitsch Chardonnay	-0.252238902	0.13742421
Ritinitis Noble Retsina	0.887165453	0.04316688
Retsina	0.834757303	-0.35998465
Krems Chardonnay	-0.605187499	-0.12657463
Castel Nova Chardonnay	-0.246390276	-0.27943496

```
$`4`
```

	D1	D2
Jurtschitsch Chardonnay	-0.296068454	0.5740424
Ziniel Chardonnay	0.001551592	0.8106144
Markowitsch Chardonnay	-0.120187476	0.3250501
Ritinitis Noble Retsina	0.422719001	0.1021028
Retsina	0.397747424	-0.8514734
Krems Chardonnay	-0.288361381	-0.2993876
Castel Nova Chardonnay	-0.117400707	-0.6609488

```
$`5`
```

	D1	D2
Jurtschitsch Chardonnay	-0.623368308	0.22418187
Ziniel Chardonnay	0.003266858	0.31657077
Markowitsch Chardonnay	-0.253053180	0.12694244

Ritinitis Noble Retsina	0.890029401	0.03987441
Retsina	0.837452068	-0.33252751
Krems Chardonnay	-0.607141166	-0.11692039
Castel Nova Chardonnay	-0.247185673	-0.25812159

\$`6`

	D1	D2
Jurtschitsch Chardonnay	-0.488885736	0.37443877
Ziniel Chardonnay	0.002562081	0.52875092
Markowitsch Chardonnay	-0.198460667	0.21202505
Ritinitis Noble Retsina	0.698018608	0.06660006
Retsina	0.656784064	-0.55540259
Krems Chardonnay	-0.476159362	-0.19528576
Castel Nova Chardonnay	-0.193858989	-0.43112644

\$`7`

	D1	D2
Jurtschitsch Chardonnay	-0.634260341	0.21511266
Ziniel Chardonnay	0.003323939	0.30376400
Markowitsch Chardonnay	-0.257474745	0.12180703
Ritinitis Noble Retsina	0.905580769	0.03826131
Retsina	0.852084759	-0.31907522
Krems Chardonnay	-0.617749665	-0.11219041
Castel Nova Chardonnay	-0.251504716	-0.24767937

\$`8`

	D1	D2
Jurtschitsch Chardonnay	-0.446307915	0.38179109
Ziniel Chardonnay	0.002338945	0.53913325
Markowitsch Chardonnay	-0.181176418	0.21618828
Ritinitis Noble Retsina	0.637227080	0.06790779
Retsina	0.599583716	-0.56630824
Krems Chardonnay	-0.434689901	-0.19912031
Castel Nova Chardonnay	-0.176975507	-0.43959186

\$`9`

	D1	D2
Jurtschitsch Chardonnay	-0.592809984	0.3020481
Ziniel Chardonnay	0.003106712	0.4265270
Markowitsch Chardonnay	-0.240648184	0.1710340
Ritinitis Noble Retsina	0.846399004	0.0537242
Retsina	0.796399080	-0.4480260
Krems Chardonnay	-0.577378318	-0.1575310
Castel Nova Chardonnay	-0.235068310	-0.3477763

\$`10`

	D1	D2
Jurtschitsch Chardonnay	-0.645827398	0.20503116

Ziniel Chardonnay	0.003384558	0.28952775
Markowitsch Chardonnay	-0.262170333	0.11609840
Ritinitis Noble Retsina	0.922095918	0.03646815
Retsina	0.867624297	-0.30412139
Krems Chardonnay	-0.629015615	-0.10693248
Castel Nova Chardonnay	-0.256091428	-0.23607159

> wineWMDS\$gspace

	D1	D2
Jurtschitsch Chardonnay	-0.588017116	0.25138806
Ziniel Chardonnay	0.003081594	0.35498907
Markowitsch Chardonnay	-0.238702544	0.14234788
Ritinitis Noble Retsina	0.839555870	0.04471348
Retsina	0.789960195	-0.37288228
Krems Chardonnay	-0.572710215	-0.13110958
Castel Nova Chardonnay	-0.233167784	-0.28944663

> wineWMDS\$cweights

\$`1`

	D1	D2
D1	0.4534722	0.000000
D2	0.0000000	2.116118

\$`2`

	D1	D2
D1	1.104744	0.0000000
D2	0.0000000	0.7873918

\$`3`

	D1	D2
D1	1.056708	0.000000
D2	0.0000000	0.965411

\$`4`

	D1	D2
D1	0.5035031	0.000000
D2	0.0000000	2.283491

\$`5`

	D1	D2
D1	1.060119	0.0000000
D2	0.0000000	0.8917761

\$`6`

	D1	D2
D1	0.8314141	0.000000
D2	0.0000000	1.489485

\$`7`

```
      D1      D2
D1 1.078643 0.000000
D2 0.000000 0.8556996
```

\$`8`

```
      D1      D2
D1 0.759005 0.000000
D2 0.000000 1.518732
```

\$`9`

```
      D1      D2
D1 1.008151 0.000000
D2 0.000000 1.201521
```

\$`10`

```
      D1      D2
D1 1.098314 0.000000
D2 0.000000 0.8155963
```

> wineWMDs\$weightmat

```
[[1]]
  1 2 3 4 5 6
2 1
3 1 1
4 1 1 1
5 1 1 1 1
6 1 1 1 1 1
7 1 1 1 1 1 1
```

```
[[2]]
  1 2 3 4 5 6
2 1
3 1 1
4 1 1 1
5 1 1 1 1
6 1 1 1 1 1
7 1 1 1 1 1 1
```

```
[[3]]
  1 2 3 4 5 6
2 1
3 1 1
4 1 1 1
5 1 1 1 1
6 1 1 1 1 1
7 1 1 1 1 1 1
```

```
[[4]]
```

1 2 3 4 5 6  
2 1  
3 1 1  
4 1 1 1  
5 1 1 1 1  
6 1 1 1 1 1  
7 1 1 1 1 1 1

[[5]]  
1 2 3 4 5 6  
2 1  
3 1 1  
4 1 1 1  
5 1 1 1 1  
6 1 1 1 1 1  
7 1 1 1 1 1 1

[[6]]  
1 2 3 4 5 6  
2 1  
3 1 1  
4 1 1 1  
5 1 1 1 1  
6 1 1 1 1 1  
7 1 1 1 1 1 1

[[7]]  
1 2 3 4 5 6  
2 1  
3 1 1  
4 1 1 1  
5 1 1 1 1  
6 1 1 1 1 1  
7 1 1 1 1 1 1

[[8]]  
1 2 3 4 5 6  
2 1  
3 1 1  
4 1 1 1  
5 1 1 1 1  
6 1 1 1 1 1  
7 1 1 1 1 1 1

[[9]]  
1 2 3 4 5 6  
2 1  
3 1 1

```
4 1 1 1
5 1 1 1 1
6 1 1 1 1 1
7 1 1 1 1 1 1
```

```
[[10]]
  1 2 3 4 5 6
2 1
3 1 1
4 1 1 1
5 1 1 1 1
6 1 1 1 1 1
7 1 1 1 1 1 1
```

```
> wineWMDs$ndim
[1] 2
> wineWMDs$model
[1] "Three-way SMACOF"
```