

IRDFE-v1-05\_coveig.1st

COVEIG - Check covariance matrix

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Source filename : IRDFE-v1-05.endf

ENDF source file is assumed

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Processing MAT/MF/MT,NC,NI 325 33 105 0 2  
Dont know how to process covariance LB= 1 MT 105

First block of the Cov.Mtx of order 5

1.8230000E-6	1.6530000E-6	1.6530000E-6	1.6510000E-6	1.6510000E-6
1.6530000E-6	1.8210000E-6	1.6530000E-6	1.6540000E-6	1.6520000E-6
1.6530000E-6	1.6530000E-6	1.8220000E-6	1.6530000E-6	1.6530000E-6
1.6510000E-6	1.6540000E-6	1.6530000E-6	1.8210000E-6	1.6530000E-6
1.6510000E-6	1.6520000E-6	1.6530000E-6	1.6530000E-6	1.8210000E-6

Lowest eigenvalues in ascending order 80

1	16	1.59867E-07
2	15	1.60547E-07
3	18	1.61649E-07
4	14	1.61956E-07
5	13	1.63347E-07
6	17	1.63536E-07
7	3	1.64390E-07
8	10	1.65151E-07
9	2	1.65540E-07
10	12	1.66171E-07

...

80	1	1.85055E-03
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Processing MAT/MF/MT,NC,NI 325 33 105 5752 81  
Dont know how to process nc-type covar. for MT 105

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Processing MAT/MF/MT,NC,NI 525 33 107 1 0  
Dont know how to process nc-type covar. for MT 107

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Processing MAT/MF/MT,NC,NI 525 33 800 0 1

First block of the Cov.Mtx of order 5

6.0810000E-6	5.5270000E-6	5.7350000E-6	5.7330000E-6	5.9410000E-6
5.5270000E-6	6.0830000E-6	5.7370000E-6	5.7360000E-6	5.9440000E-6
5.7350000E-6	5.7370000E-6	6.5550000E-6	5.9580000E-6	6.1750000E-6
5.7330000E-6	5.7360000E-6	5.9580000E-6	6.5560000E-6	6.1770000E-6
5.9410000E-6	5.9440000E-6	6.1750000E-6	6.1770000E-6	7.0460000E-6

Lowest eigenvalues in ascending order 70

1	1	5.54881E-07
2	3	5.76001E-07
3	4	5.97269E-07
4	5	6.19800E-07
5	6	6.41820E-07
6	7	6.67698E-07
7	8	6.88749E-07
8	9	7.14894E-07
9	10	7.36626E-07
10	11	7.37303E-07

...

70	2	2.10788E-02
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Processing MAT/MF/MT,NC,NI 525 33 800 5042 71  
 Dont know how to process nc-type covar. for MT 800

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Processing MAT/MF/MT,NC,NI 525 33 801 0 1

First block of the Cov.Mtx of order 5

6.7460000E-7	6.3530000E-7	6.3410000E-7	6.3300000E-7	6.3180000E-7
6.3530000E-7	7.2470000E-7	6.5820000E-7	6.5730000E-7	6.5620000E-7
6.3410000E-7	6.5820000E-7	7.2580000E-7	6.5960000E-7	6.5910000E-7
6.3300000E-7	6.5730000E-7	6.5960000E-7	7.2580000E-7	6.5960000E-7
6.3180000E-7	6.5620000E-7	6.5910000E-7	6.5960000E-7	7.2570000E-7

Lowest eigenvalues in ascending order 70

1	1	6.29646E-08
2	6	6.58894E-08
3	8	6.59042E-08
4	10	6.60236E-08
5	3	6.61130E-08
6	7	6.61307E-08
7	5	6.61823E-08
8	9	6.62192E-08
9	11	6.71055E-08
10	13	7.21389E-08

...

70	2	3.07818E-03
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Processing MAT/MF/MT,NC,NI 525 33 801 5752 71  
 Dont know how to process nc-type covar. for MT 801

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Processing MAT/MF/MT,NC,NI 925 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	9.7129100E-3	9.4619800E-3	9.2040100E-3	8.7383200E-3
0.0000000E+0	9.4619800E-3	9.3363400E-3	9.1078700E-3	8.7196500E-3
0.0000000E+0	9.2040100E-3	9.1078700E-3	8.9985800E-3	8.6765800E-3
0.0000000E+0	8.7383200E-3	8.7196500E-3	8.6765800E-3	8.5839600E-3

Lowest eigenvalues in ascending order 5

1	1	0.00000E+00
2	3	2.91995E-05
3	4	4.31527E-05
4	5	4.24647E-04
5	2	3.61348E-02

...

5	2	3.61348E-02
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First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	7.8445600E-3	4.8983500E-3	3.0270600E-3	1.9291700E-3
0.0000000E+0	4.8983500E-3	3.6480700E-3	2.3605400E-3	1.4491100E-3
0.0000000E+0	3.0270600E-3	2.3605400E-3	1.8262700E-3	1.3542100E-3
0.0000000E+0	1.9291700E-3	1.4491100E-3	1.3542100E-3	1.2331800E-3

Lowest eigenvalues in ascending order 27

1	1	0.00000E+00
2	13	3.10631E-08
3	18	3.42948E-08
4	12	3.57237E-08

IRDFE-v1-05\_coveig.lst

```
5 17 4.08486E-08
6 15 4.41346E-08
7 19 4.60720E-08
8 16 5.03393E-08
9 21 5.41937E-08
10 23 5.56205E-08
...
27 2 6.37025E-02
---
```

Processing MAT/MF/MT,NC,NI 1125 33 16 0 2

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 6.3719500E-3 6.0921200E-3 5.4065600E-3 4.7155700E-3
0.0000000E+0 6.0921200E-3 6.8225300E-3 6.5051100E-3 6.1947300E-3
0.0000000E+0 5.4065600E-3 6.5051100E-3 6.9044300E-3 6.8413800E-3
0.0000000E+0 4.7155700E-3 6.1947300E-3 6.8413800E-3 7.4631100E-3
```

Lowest eigenvalues in ascending order 7

```
1 1 0.00000E+00
2 4 5.28275E-05
3 2 1.49488E-04
4 6 2.97659E-04
5 7 7.62754E-04
6 5 4.29012E-03
7 3 4.17709E-02
...
7 3 4.17709E-02
```

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 1.0000000E+0 1.0625000E-1 4.7360000E-2 3.1200000E-3
0.0000000E+0 1.0625000E-1 1.5625000E-2 7.5999900E-3 5.0250000E-4
0.0000000E+0 4.7360000E-2 7.5999900E-3 4.0959900E-3 3.5712000E-4
0.0000000E+0 3.1200000E-3 5.0250000E-4 3.5712000E-4 3.6000000E-5
```

WARNING - Negative eigenvalues found MAT/MF/MT 1125 33 16

Lowest eigenvalues in ascending order 17

```
1 5-1.51634E-04
2 10-7.10667E-05
3 12-5.07445E-05
4 13-1.69897E-05
5 9-8.20571E-06
6 6-1.61670E-06
7 1 0.00000E+00
8 7 2.20358E-06
9 14 3.28460E-05
10 15 5.16309E-05
...
17 2 1.01364E+00
---
```

Processing MAT/MF/MT,NC,NI 1125 33 102 0 2

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 3.8656400E-2 3.6401400E-2 3.5833000E-2 3.6520300E-2
0.0000000E+0 3.6401400E-2 3.5820900E-2 3.5264500E-2 3.5261000E-2
0.0000000E+0 3.5833000E-2 3.5264500E-2 3.5316900E-2 3.5116000E-2
0.0000000E+0 3.6520300E-2 3.5261000E-2 3.5116000E-2 3.7414600E-2
```

Lowest eigenvalues in ascending order 7

```
1 1 0.00000E+00
```

IRDFE-v1-05\_coveig.lst

2 4 2.38379E-05  
3 7 1.97015E-04  
4 6 7.98105E-04  
5 5 1.61663E-03  
6 3 3.53401E-03  
7 2 2.13266E-01

...  
7 2 2.13266E-01  
Dont know how to process covariance LB= 1 MT 102  
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Processing MAT/MF/MT,NC,NI 1225 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.0206000E-2	1.1332200E-2	1.1406800E-2	1.1725800E-2
0.0000000E+0	1.1332200E-2	1.3256800E-2	1.3527300E-2	1.2972400E-2
0.0000000E+0	1.1406800E-2	1.3527300E-2	1.3944100E-2	1.3489500E-2
0.0000000E+0	1.1725800E-2	1.2972400E-2	1.3489500E-2	1.8363400E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 4 1.38982E-05  
3 7 2.76769E-04  
4 2 5.35447E-04  
5 6 2.72182E-03  
6 5 5.40565E-03  
7 3 7.58266E-02

...  
7 3 7.58266E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.7521700E-2	2.1270500E-3	1.3305100E-3	5.3903300E-4
0.0000000E+0	2.1270500E-3	3.0739300E-3	1.7184100E-3	7.2460000E-4
0.0000000E+0	1.3305100E-3	1.7184100E-3	1.5180100E-3	8.3209600E-4
0.0000000E+0	5.3903300E-4	7.2460000E-4	8.3209600E-4	7.6788600E-4

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
2 18 1.55439E-08  
3 17 1.72000E-08  
4 20 1.87344E-08  
5 44 2.33172E-08  
6 13 2.41031E-08  
7 48 2.47816E-08  
8 43 2.52989E-08  
9 19 2.57490E-08  
10 22 2.65937E-08

...  
50 2 4.77065E-02  
---

Processing MAT/MF/MT,NC,NI 1325 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	6.2403600E-1	9.0953600E-1	7.7061600E-1	1.1907500E+0
0.0000000E+0	9.0953600E-1	1.3335900E+0	1.1311400E+0	1.7520300E+0
0.0000000E+0	7.7061600E-1	1.1311400E+0	9.6456700E-1	1.4927900E+0
0.0000000E+0	1.1907500E+0	1.7520300E+0	1.4927900E+0	2.3196100E+0

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00

IRDFF-v1-05\_coveig.lst

2 6 2.96201E-04  
 3 2 8.39246E-04  
 4 4 1.78751E-03  
 5 7 6.39897E-03  
 6 5 1.66060E-02  
 7 3 7.56560E+00  
 ...  
 7 3 7.56560E+00

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	5.0234300E-2	2.4434000E-3	1.7828800E-3	4.8605200E-4
0.0000000E+0	2.4434000E-3	1.5639500E-3	8.5620800E-4	6.7000400E-4
0.0000000E+0	1.7828800E-3	8.5620800E-4	1.3290500E-3	7.0330200E-4
0.0000000E+0	4.8605200E-4	6.7000400E-4	7.0330200E-4	9.3227400E-4

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
 2 32 9.54910E-08  
 3 34 9.91682E-08  
 4 28 1.03165E-07  
 5 26 1.11218E-07  
 6 18 1.13347E-07  
 7 25 1.22416E-07  
 8 33 1.22847E-07  
 9 35 1.33737E-07  
 10 39 1.34967E-07  
 ...  
 50 2 5.19587E-02  
 ---

Processing MAT/MF/MT,NC,NI 1325 33 107 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.0501100E-1	1.0650200E-1	1.0815000E-1	1.0883300E-1
0.0000000E+0	1.0650200E-1	1.0925600E-1	1.0998400E-1	1.1080800E-1
0.0000000E+0	1.0815000E-1	1.0998400E-1	1.1209800E-1	1.1292400E-1
0.0000000E+0	1.0883300E-1	1.1080800E-1	1.1292400E-1	1.1394600E-1

Lowest eigenvalues in ascending order 5

1 1 0.00000E+00  
 2 5 6.43401E-05  
 3 2 5.22175E-04  
 4 4 9.38015E-04  
 5 3 4.38786E-01  
 ...  
 5 3 4.38786E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.1219900E-2	-1.1039000E-3	5.5117000E-4	2.7152200E-4
0.0000000E+0	-1.1039000E-3	4.2102200E-4	1.5157700E-4	6.0553800E-5
0.0000000E+0	5.5117000E-4	1.5157700E-4	3.1478700E-4	1.7950500E-4
0.0000000E+0	2.7152200E-4	6.0553800E-5	1.7950500E-4	2.7432500E-4

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
 2 28 1.47954E-07  
 3 33 1.53288E-07  
 4 31 1.59763E-07  
 5 19 1.66053E-07  
 6 17 1.71776E-07  
 7 39 1.77459E-07

IRDFE-v1-05\_coveig.lst

8 25 1.82718E-07  
 9 24 1.88718E-07  
 10 23 1.96483E-07  
 ...  
 50 2 4.19312E-02  
 ---

Processing MAT/MF/MT,NC,NI 1425 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.5891800E-2	1.7012300E-2	1.6097500E-2	1.4433000E-2
0.0000000E+0	1.7012300E-2	1.9140100E-2	1.7906700E-2	1.5778900E-2
0.0000000E+0	1.6097500E-2	1.7906700E-2	1.7145200E-2	1.5169100E-2
0.0000000E+0	1.4433000E-2	1.5778900E-2	1.5169100E-2	1.4075800E-2

Lowest eigenvalues in ascending order 6

1 1 0.00000E+00  
 2 4 1.22252E-04  
 3 2 2.29797E-04  
 4 5 5.27803E-04  
 5 6 5.66009E-03  
 6 3 7.51308E-02  
 ...  
 6 3 7.51308E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	6.7509700E-2	2.8878100E-3	1.9618000E-3	8.8301600E-4
0.0000000E+0	2.8878100E-3	6.0978200E-3	2.6245200E-3	1.1152900E-3
0.0000000E+0	1.9618000E-3	2.6245200E-3	2.4085200E-3	1.4394900E-3
0.0000000E+0	8.8301600E-4	1.1152900E-3	1.4394900E-3	1.4104900E-3

Lowest eigenvalues in ascending order 48

1 1 0.00000E+00  
 2 30 3.51558E-06  
 3 32 3.52807E-06  
 4 29 3.54931E-06  
 5 33 3.57786E-06  
 6 28 3.61457E-06  
 7 34 3.66014E-06  
 8 26 3.71059E-06  
 9 35 3.77536E-06  
 10 25 3.83509E-06  
 ...  
 48 2 6.77829E-02  
 ---

Processing MAT/MF/MT,NC,NI 1525 33 103 0 1

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.5097300E-1	-1.9843400E-3	1.5098500E-4	1.1555100E-3
0.0000000E+0	-1.9843400E-3	3.1015200E-3	1.7785500E-3	1.7547400E-3
0.0000000E+0	1.5098500E-4	1.7785500E-3	2.1781100E-3	1.7145300E-3
0.0000000E+0	1.1555100E-3	1.7547400E-3	1.7145300E-3	2.3191500E-3

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
 2 23 5.38154E-06  
 3 22 5.43360E-06  
 4 26 5.49341E-06  
 5 21 5.58882E-06  
 6 24 5.67996E-06

IRDFE-v1-05\_coveig.lst

7 27 5.77461E-06  
 8 31 5.88024E-06  
 9 32 5.98905E-06  
 10 19 6.10698E-06  
 ...  
 50 2 1.66145E-01  
 ---

Processing MAT/MF/MT,NC,NI 1625 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.1976300E-2	2.2724000E-2	1.9970700E-2	1.3007400E-2
0.0000000E+0	2.2724000E-2	2.3593900E-2	2.0778300E-2	1.3679900E-2
0.0000000E+0	1.9970700E-2	2.0778300E-2	2.0317000E-2	1.5427700E-2
0.0000000E+0	1.3007400E-2	1.3679900E-2	1.5427700E-2	1.7381600E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
 2 2 3.99750E-05  
 3 4 3.82599E-04  
 4 6 9.40068E-04  
 5 7 3.32709E-03  
 6 5 1.11932E-02  
 7 3 1.08022E-01  
 ...  
 7 3 1.08022E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.3934900E-2	4.7099000E-4	2.3371200E-4	4.2317200E-4
0.0000000E+0	4.7099000E-4	1.3846400E-3	7.9616100E-4	7.3478900E-4
0.0000000E+0	2.3371200E-4	7.9616100E-4	1.1081800E-3	8.1007500E-4
0.0000000E+0	4.2317200E-4	7.3478900E-4	8.1007500E-4	1.1051600E-3

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
 2 35 1.12570E-07  
 3 28 1.13914E-07  
 4 34 1.18065E-07  
 5 30 1.24175E-07  
 6 36 1.30345E-07  
 7 40 1.37547E-07  
 8 38 1.46079E-07  
 9 27 1.52612E-07  
 10 37 1.56062E-07  
 ...  
 50 3 1.66101E-02  
 ---

Processing MAT/MF/MT,NC,NI 2125 33 102 0 4

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.7971400E-2	3.8192100E-2	3.8845600E-2	3.7172500E-2
0.0000000E+0	3.8192100E-2	3.8458200E-2	3.9118500E-2	3.7488300E-2
0.0000000E+0	3.8845600E-2	3.9118500E-2	3.9894300E-2	3.8169600E-2
0.0000000E+0	3.7172500E-2	3.7488300E-2	3.8169600E-2	3.6742400E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
 2 2 9.24904E-06  
 3 4 3.67391E-05  
 4 5 6.78956E-05

IRDFE-v1-05\_coveig.1st

5 6 7.71324E-04  
6 7 3.23560E-03  
7 3 2.15263E-01  
...  
7 3 2.15263E-01

First block of the Cov.Mtx of order 5

8.4225600E-5	6.2114700E-5	6.2114900E-5	6.2114500E-5	6.2114600E-5
6.2114700E-5	8.5305000E-5	6.2115000E-5	6.2114600E-5	6.2114600E-5
6.2114900E-5	6.2115000E-5	8.6385500E-5	6.2114800E-5	6.2114800E-5
6.2114500E-5	6.2114600E-5	6.2114800E-5	8.7461300E-5	6.2114400E-5
6.2114600E-5	6.2114600E-5	6.2114800E-5	6.2114400E-5	7.9909400E-5

Lowest eigenvalues in ascending order 405

1 392 1.86623E-06  
2 391 2.76068E-06  
3 390 7.44288E-06  
4 66 1.56377E-05  
5 21 1.57144E-05  
6 393 1.65894E-05  
7 22 1.67153E-05  
8 67 1.67166E-05  
9 54 1.67169E-05  
10 99 1.67185E-05

...  
405 370 1.15596E+02

Dont know how to process covariance LB= 1 MT 102  
Dont know how to process covariance LB= 1 MT 102  
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Processing MAT/MF/MT,NC,NI 2225 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.4428200E-2	1.2163400E-2	6.3681300E-3	-4.1875800E-4
0.0000000E+0	1.2163400E-2	1.0805600E-2	6.6653200E-3	1.5260900E-3
0.0000000E+0	6.3681300E-3	6.6653200E-3	7.2500500E-3	7.2744300E-3
0.0000000E+0	-4.1875800E-4	1.5260900E-3	7.2744300E-3	1.3618600E-2

Lowest eigenvalues in ascending order 8

1 1 0.00000E+00  
2 3 2.57240E-05  
3 6 3.66030E-05  
4 4 1.77317E-04  
5 7 4.99038E-04  
6 8 3.29492E-03  
7 2 2.82627E-02  
8 5 4.87283E-02  
...  
8 5 4.87283E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.7814200E-2	1.2839200E-2	7.1501800E-3	4.1977600E-3
0.0000000E+0	1.2839200E-2	8.0691500E-3	5.5466500E-3	3.8760400E-3
0.0000000E+0	7.1501800E-3	5.5466500E-3	4.4415900E-3	3.4617000E-3
0.0000000E+0	4.1977600E-3	3.8760400E-3	3.4617000E-3	2.9928400E-3

Lowest eigenvalues in ascending order 18

1 1 0.00000E+00  
2 17 2.23125E-07  
3 16 2.51844E-07  
4 14 3.02273E-07  
5 18 3.64191E-07

IRDFE-v1-05\_coveig.1st

```

6 12 4.69035E-07
7 11 6.93504E-07
8 10 1.01169E-06
9 15 1.38922E-06
10 8 2.06209E-06
...
18 2 4.20028E-02
---
```

Processing MAT/MF/MT,NC,NI 2225 33 103 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 2.5266600E-2 2.7134100E-2 2.6175000E-2 2.4929900E-2
0.0000000E+0 2.7134100E-2 2.9677900E-2 2.8658300E-2 2.7317600E-2
0.0000000E+0 2.6175000E-2 2.8658300E-2 2.7758400E-2 2.6562400E-2
0.0000000E+0 2.4929900E-2 2.7317600E-2 2.6562400E-2 2.5730800E-2
```

Lowest eigenvalues in ascending order 8

```

1 1 0.00000E+00
2 4 1.29994E-05
3 5 3.31017E-05
4 2 3.09128E-04
5 6 3.99084E-04
6 7 1.14829E-03
7 8 5.99279E-03
8 3 1.67644E-01
...
8 3 1.67644E-01
```

First block of the Cov.Mtx of order 5

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 7.5471400E-2 7.7387100E-3 5.3009800E-3 3.3430900E-3
0.0000000E+0 7.7387100E-3 8.7769400E-3 2.1255900E-3 1.6118200E-3
0.0000000E+0 5.3009800E-3 2.1255900E-3 2.6519800E-3 1.3766000E-3
0.0000000E+0 3.3430900E-3 1.6118200E-3 1.3766000E-3 1.9746900E-3
```

Lowest eigenvalues in ascending order 32

```

1 1 0.00000E+00
2 13 3.10490E-07
3 17 3.15999E-07
4 25 3.23692E-07
5 29 3.36052E-07
6 18 3.51738E-07
7 11 3.73500E-07
8 6 3.92237E-07
9 19 4.22798E-07
10 26 4.45113E-07
...
32 2 7.87709E-02
---
```

Processing MAT/MF/MT,NC,NI 2228 33 103 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 3.3135400E-2 3.1932400E-2 2.9524600E-2 2.6312200E-2
0.0000000E+0 3.1932400E-2 3.0930200E-2 2.8701700E-2 2.5828600E-2
0.0000000E+0 2.9524600E-2 2.8701700E-2 2.7246200E-2 2.5097900E-2
0.0000000E+0 2.6312200E-2 2.5828600E-2 2.5097900E-2 2.4251000E-2
```

Lowest eigenvalues in ascending order 7

```

1 1 0.00000E+00
2 3 1.74752E-05
```

IRDFE-v1-05\_coveig.1st

```

3  4 5.63059E-05
4  5 1.42879E-04
5  7 5.56528E-04
6  6 6.65791E-03
7  2 1.51569E-01
...
7  2 1.51569E-01

```

First block of the Cov.Mtx of order 5

```

0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0
0.000000E+0  4.803110E-3  2.269560E-3  4.941240E-4  4.078850E-4
0.000000E+0  2.269560E-3  2.654660E-3  5.099220E-4  4.410870E-4
0.000000E+0  4.941240E-4  5.099220E-4  2.119300E-3  1.288750E-3
0.000000E+0  4.078850E-4  4.410870E-4  1.288750E-3  1.787940E-3

```

Lowest eigenvalues in ascending order 39

```

1  1 0.00000E+00
2  24 3.53447E-07
3  23 3.58193E-07
4  26 3.67753E-07
5  27 3.77307E-07
6  21 3.91092E-07
7  29 4.03184E-07
8  20 4.28469E-07
9  18 4.51120E-07
10 31 4.80727E-07
...
39  2 9.36503E-02
---
```

Processing MAT/MF/MT,NC,NI 2231 33 103 0 2

First block of the Cov.Mtx of order 5

```

0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0
0.000000E+0  3.117070E-2  3.067400E-2  2.831130E-2  2.517510E-2
0.000000E+0  3.067400E-2  3.039330E-2  2.802150E-2  2.509080E-2
0.000000E+0  2.831130E-2  2.802150E-2  2.617510E-2  2.356690E-2
0.000000E+0  2.517510E-2  2.509080E-2  2.356690E-2  2.198390E-2

```

Lowest eigenvalues in ascending order 7

```

1  1 0.00000E+00
2  3 6.57284E-05
3  4 1.17190E-04
4  5 2.92654E-04
5  7 5.36156E-04
6  6 3.00762E-03
7  2 1.45592E-01
...
7  2 1.45592E-01

```

First block of the Cov.Mtx of order 5

```

0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0  0.000000E+0
0.000000E+0  1.288280E-1  5.569520E-3  3.583240E-3  2.207730E-3
0.000000E+0  5.569520E-3  8.068620E-3  5.940750E-3  4.159420E-3
0.000000E+0  3.583240E-3  5.940750E-3  6.623930E-3  5.452660E-3
0.000000E+0  2.207730E-3  4.159420E-3  5.452660E-3  5.596360E-3

```

Lowest eigenvalues in ascending order 30

```

1  1 0.00000E+00
2  18 1.83020E-06
3  20 1.87016E-06
4  21 1.93418E-06
5  17 2.03708E-06
6  22 2.14327E-06

```

IRDFE-v1-05\_coveig.1st

7 23 2.31538E-06  
8 15 2.50017E-06  
9 12 2.70176E-06  
10 14 3.01478E-06  
...  
30 2 1.29631E-01  
---

Processing MAT/MF/MT,NC,NI 2328 33 107 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.6473100E-1	1.7212800E-1	1.7323100E-1	1.7398900E-1
0.0000000E+0	1.7212800E-1	1.8081100E-1	1.8217200E-1	1.8296200E-1
0.0000000E+0	1.7323100E-1	1.8217200E-1	1.8371000E-1	1.8461500E-1
0.0000000E+0	1.7398900E-1	1.8296200E-1	1.8461500E-1	1.8578200E-1

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 4 1.31676E-05  
3 5 5.50055E-05  
4 2 2.85694E-04  
5 7 1.38094E-03  
6 6 1.62962E-03  
7 3 1.07674E+00  
...  
7 3 1.07674E+00

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	6.4093500E-3	3.7027800E-3	2.2090400E-3	1.3693400E-3
0.0000000E+0	3.7027800E-3	3.5336400E-3	2.7218800E-3	1.8738500E-3
0.0000000E+0	2.2090400E-3	2.7218800E-3	2.6445500E-3	2.2516300E-3
0.0000000E+0	1.3693400E-3	1.8738500E-3	2.2516300E-3	2.3041900E-3

Lowest eigenvalues in ascending order 27

1 1 0.00000E+00  
2 19 3.64350E-09  
3 24 4.50554E-09  
4 22 4.75493E-09  
5 13 4.97859E-09  
6 25 5.50819E-09  
7 17 5.88146E-09  
8 15 6.49670E-09  
9 26 7.44900E-09  
10 16 9.67213E-09  
...  
27 2 1.34609E-02  
---

Processing MAT/MF/MT,NC,NI 2431 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.6200600E-2	1.5906300E-2	1.2649700E-2	1.0855500E-2
0.0000000E+0	1.5906300E-2	1.9340500E-2	2.0035200E-2	1.7601800E-2
0.0000000E+0	1.2649700E-2	2.0035200E-2	2.5792200E-2	2.3160200E-2
0.0000000E+0	1.0855500E-2	1.7601800E-2	2.3160200E-2	2.1262700E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 5 2.14310E-05  
3 2 8.97588E-05  
4 6 1.87467E-04

IRDFE-v1-05\_coveig.1st

5 7 2.16255E-03  
6 4 1.11290E-02  
7 3 1.03150E-01  
...  
7 3 1.03150E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.0310000E-2	3.0150000E-2	2.0110000E-2	4.4410000E-3
0.0000000E+0	3.0150000E-2	2.2560000E-2	1.5040000E-2	3.3220000E-3
0.0000000E+0	2.0110000E-2	1.5040000E-2	1.0030000E-2	2.2160000E-3
0.0000000E+0	4.4410000E-3	3.3220000E-3	2.2160000E-3	1.0880000E-3

WARNING - Negative eigenvalues found MAT/MF/MT 2431 33 16

Lowest eigenvalues in ascending order 15

1 4-2.79548E-06  
2 1 0.00000E+00  
3 6 5.20406E-07  
4 3 6.81981E-06  
5 8 1.60092E-04  
6 5 2.04434E-04  
7 12 3.07936E-04  
8 10 3.20115E-04  
9 14 3.52054E-04  
10 13 4.09013E-04  
...  
15 2 7.58949E-02  
---

Processing MAT/MF/MT,NC,NI 2525 33 16 0 2

First block of the Cov.Mtx of order 4

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.6461700E-2	1.3900800E-2	1.0820600E-2
0.0000000E+0	1.3900800E-2	1.2553400E-2	1.0749400E-2
0.0000000E+0	1.0820600E-2	1.0749400E-2	1.1033600E-2

Lowest eigenvalues in ascending order 4

1 1 0.00000E+00  
2 3 1.01465E-04  
3 4 2.59333E-03  
4 2 3.73539E-02  
...  
4 2 3.73539E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	6.8167000E-2	5.5453900E-3	2.8311200E-3	8.4545800E-4
0.0000000E+0	5.5453900E-3	5.2353400E-3	2.1564300E-3	6.9574800E-4
0.0000000E+0	2.8311200E-3	2.1564300E-3	1.8135700E-3	9.5020700E-4
0.0000000E+0	8.4545800E-4	6.9574800E-4	9.5020700E-4	9.8430900E-4

Lowest eigenvalues in ascending order 40

1 1 0.00000E+00  
2 18 9.60220E-06  
3 19 9.64332E-06  
4 13 9.73055E-06  
5 17 9.85057E-06  
6 15 1.00065E-05  
7 14 1.02263E-05  
8 20 1.04995E-05  
9 12 1.07984E-05  
10 11 1.11914E-05  
...  
...

40 2 3.56662E-01  
 ---

Processing MAT/MF/MT,NC,NI 2525 33 102 0 1

First block of the Cov.Mtx of order 5

5.3207900E-4	1.5697300E-4	2.3929500E-4	3.9766500E-4	7.1638500E-4
1.5697300E-4	7.9939100E-5	9.5127200E-5	1.5767400E-4	2.8355100E-4
2.3929500E-4	9.5127200E-5	2.8995800E-4	2.6839300E-4	4.3465500E-4
3.9766500E-4	1.5767400E-4	2.6839300E-4	5.6484100E-4	8.7898200E-4
7.1638500E-4	2.8355100E-4	4.3465500E-4	8.7898200E-4	1.9591100E-3

Lowest eigenvalues in ascending order 53

1	15	1.82438E-06
2	11	2.94197E-06
3	2	2.01631E-05
4	4	2.64371E-05
5	5	1.32998E-04
6	3	1.49490E-04
7	1	1.95618E-04
8	17	3.50243E-04
9	14	7.78082E-04
10	12	8.32268E-04
...		
53	43	2.58296E+01

Processing MAT/MF/MT,NC,NI 2625 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.5031900E-1	2.7236700E-1	2.0063500E-1	1.5497700E-1
0.0000000E+0	2.7236700E-1	2.2579500E-1	1.7641400E-1	1.3329300E-1
0.0000000E+0	2.0063500E-1	1.7641400E-1	1.4967900E-1	1.1221000E-1
0.0000000E+0	1.5497700E-1	1.3329300E-1	1.1221000E-1	8.7387000E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	5	5.89294E-05
3	7	7.29189E-04
4	3	1.62874E-03
5	6	1.62774E-02
6	4	3.49339E-02
7	2	8.41098E-01
...		
7	2	8.41098E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.3859700E-1	2.3366000E-2	1.6359600E-2	1.0987300E-2
0.0000000E+0	2.3366000E-2	2.8815700E-2	1.4507200E-2	8.1100200E-3
0.0000000E+0	1.6359600E-2	1.4507200E-2	1.1353800E-2	7.7127900E-3
0.0000000E+0	1.0987300E-2	8.1100200E-3	7.7127900E-3	6.4791900E-3

Lowest eigenvalues in ascending order 13

1	1	0.00000E+00
2	12	3.65772E-06
3	11	4.83696E-06
4	10	6.69766E-06
5	8	1.07806E-05
6	5	2.27170E-05
7	9	7.28069E-05
8	6	4.72802E-04
9	7	5.38548E-03

10 13 1.13987E-02  
 ...  
 13 2 1.48451E-01  
 ---

Processing MAT/MF/MT,NC,NI 2625 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.1530100E-2	1.4594700E-2	7.2031110E-3	2.2455500E-3
0.0000000E+0	1.4594700E-2	1.2991200E-2	1.0616500E-2	5.6857900E-3
0.0000000E+0	7.2031110E-3	1.0616500E-2	1.3576300E-2	9.0100990E-3
0.0000000E+0	2.2455500E-3	5.6857900E-3	9.0100990E-3	7.3108000E-3

Lowest eigenvalues in ascending order 5

1 1 0.00000E+00  
 2 3 9.21017E-05  
 3 5 6.63040E-04  
 4 4 1.37537E-02  
 5 2 4.08995E-02  
 ...  
 5 2 4.08995E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.7240400E-2	2.7052100E-3	1.0486000E-3	7.5946600E-4
0.0000000E+0	2.7052100E-3	6.8487800E-3	3.0649800E-3	1.5868600E-3
0.0000000E+0	1.0486000E-3	3.0649800E-3	3.4158600E-3	2.3073100E-3
0.0000000E+0	7.5946600E-4	1.5868600E-3	2.3073100E-3	2.9296800E-3

Lowest eigenvalues in ascending order 46

1 1 0.00000E+00  
 2 18 6.92025E-07  
 3 11 6.92249E-07  
 4 14 6.95899E-07  
 5 21 7.00416E-07  
 6 15 7.07030E-07  
 7 17 7.11130E-07  
 8 22 7.15628E-07  
 9 12 7.34980E-07  
 10 23 7.59782E-07  
 ...  
 46 2 4.04256E-01  
 ---

Processing MAT/MF/MT,NC,NI 2625 33 107 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.3344500E-1	4.5646100E-1	4.4789600E-1	3.8632900E-1
0.0000000E+0	4.5646100E-1	4.8122700E-1	4.7233100E-1	4.0745700E-1
0.0000000E+0	4.4789600E-1	4.7233100E-1	4.6673700E-1	4.0554200E-1
0.0000000E+0	3.8632900E-1	4.0745700E-1	4.0554200E-1	3.5865600E-1

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
 2 2 1.85186E-04  
 3 4 2.12139E-04  
 4 5 1.16412E-03  
 5 7 1.98425E-03  
 6 6 4.24644E-02  
 7 3 2.24837E+00  
 ...  
 7 3 2.24837E+00

IRDFE-v1-05\_coveig.1st

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.8342700E-1	7.3402400E-3	1.6622600E-3	-6.1704700E-4
0.0000000E+0	7.3402400E-3	7.1305900E-3	2.0281000E-3	-4.5496600E-5
0.0000000E+0	1.6622600E-3	2.0281000E-3	1.7259900E-3	1.0203100E-3
0.0000000E+0	-6.1704700E-4	-4.5496600E-5	1.0203100E-3	1.3748000E-3

Lowest eigenvalues in ascending order 22

1	1	0.00000E+00
2	15	2.56063E-06
3	16	2.60785E-06
4	17	2.67455E-06
5	13	2.79397E-06
6	6	2.91044E-06
7	18	3.13117E-06
8	12	3.39499E-06
9	5	3.69290E-06
10	10	4.29676E-06
...		
22	2	1.83812E-01
---		

Processing MAT/MF/MT,NC,NI 2631 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.2742200E-2	3.1094300E-2	2.9236600E-2	2.7282500E-2
0.0000000E+0	3.1094300E-2	2.9601600E-2	2.7889200E-2	2.6117200E-2
0.0000000E+0	2.9236600E-2	2.7889200E-2	2.6361700E-2	2.4790600E-2
0.0000000E+0	2.7282500E-2	2.6117200E-2	2.4790600E-2	2.3510900E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	3	5.31821E-06
3	4	1.15197E-05
4	5	6.75124E-05
5	6	4.75478E-04
6	7	3.74190E-03
7	2	1.48322E-01
...		
7	2	1.48322E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	6.9803500E-3	2.3382700E-3	1.7023600E-4	4.3532200E-4
0.0000000E+0	2.3382700E-3	2.4679800E-3	6.0436300E-4	3.5781300E-4
0.0000000E+0	1.7023600E-4	6.0436300E-4	2.0899100E-3	5.8118500E-4
0.0000000E+0	4.3532200E-4	3.5781300E-4	5.8118500E-4	2.3247700E-3

Lowest eigenvalues in ascending order 26

1	1	0.00000E+00
2	15	3.69989E-09
3	13	4.27902E-09
4	10	4.66879E-09
5	17	5.49784E-09
6	11	5.60602E-09
7	20	6.00071E-09
8	18	6.71378E-09
9	21	8.35053E-09
10	25	9.73555E-09
...		
26	2	8.12953E-03
---		

IRDFE-v1-05\_coveig.lst

Processing MAT/MF/MT,NC,NI 2637 33 102 0 4

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.3088600E-2	2.2881800E-2	2.2994200E-2	2.3338500E-2
0.0000000E+0	2.2881800E-2	2.2786200E-2	2.2909800E-2	2.3304700E-2
0.0000000E+0	2.2994200E-2	2.2909800E-2	2.3054600E-2	2.3482900E-2
0.0000000E+0	2.3338500E-2	2.3304700E-2	2.3482900E-2	2.4063200E-2

Lowest eigenvalues in ascending order 8

1	1	0.00000E+00
2	4	3.99861E-06
3	6	1.31897E-05
4	3	2.76591E-05
5	5	1.42572E-04
6	7	4.70503E-04
7	8	2.63959E-03
8	2	1.54673E-01

...

8	2	1.54673E-01
---	---	-------------

Dont know how to process covariance LB= 1 MT 102

Dont know how to process covariance LB= 1 MT 102

Dont know how to process covariance LB= 1 MT 102

---

Processing MAT/MF/MT,NC,NI 2725 33 16 0 1

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.3243400E-2	1.4513800E-3	6.1988700E-4	-9.0337600E-5
0.0000000E+0	1.4513800E-3	4.3582200E-4	1.8346000E-4	1.1202600E-4
0.0000000E+0	6.1988700E-4	1.8346000E-4	2.8131900E-4	1.5270300E-4
0.0000000E+0	-9.0337600E-5	1.1202600E-4	1.5270300E-4	1.8536300E-4

Lowest eigenvalues in ascending order 49

1	1	0.00000E+00
2	19	1.17520E-05
3	18	1.18903E-05
4	7	1.20958E-05
5	13	1.23231E-05
6	10	1.25595E-05
7	14	1.28149E-05
8	12	1.31253E-05
9	20	1.35366E-05
10	8	1.41638E-05

...

49	2	9.97381E-01
----	---	-------------

---

Processing MAT/MF/MT,NC,NI 2725 33 17 0 1

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.9142700E-1	3.4486000E-3	3.3611000E-3	3.2476200E-3
0.0000000E+0	3.4486000E-3	1.0447600E-2	6.2234600E-3	5.9853100E-3
0.0000000E+0	3.3611000E-3	6.2234600E-3	7.1256200E-3	6.0936900E-3
0.0000000E+0	3.2476200E-3	5.9853100E-3	6.0936900E-3	6.1947800E-3

Lowest eigenvalues in ascending order 40

1	1	0.00000E+00
2	14	8.33540E-06
3	16	8.58146E-06
4	17	9.03331E-06

IRDFE-v1-05\_coveig.lst

5 15 9.59968E-06  
6 18 1.04397E-05  
7 19 1.14625E-05  
8 20 1.25645E-05  
9 21 1.41907E-05  
10 13 1.59431E-05  
...  
40 2 1.94886E-01  
---

Processing MAT/MF/MT,NC,NI 2725 33 102 0 3

First block of the Cov.Mtx of order 5  
0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 2.493360E-2 2.549090E-2 2.543460E-2 2.470440E-2  
0.000000E+0 2.549090E-2 2.611180E-2 2.605220E-2 2.540140E-2  
0.000000E+0 2.543460E-2 2.605220E-2 2.605140E-2 2.546250E-2  
0.000000E+0 2.470440E-2 2.540140E-2 2.546250E-2 2.628820E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 2 1.41889E-05  
3 4 3.58107E-05  
4 5 8.75117E-05  
5 7 3.95287E-04  
6 6 4.03763E-03  
7 3 1.43382E-01  
...  
7 3 1.43382E-01

Dont know how to process covariance LB= 1 MT 102  
Dont know how to process covariance LB= 1 MT 102  
---

Processing MAT/MF/MT,NC,NI 2725 33 103 0 1

First block of the Cov.Mtx of order 5  
0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 8.133700E-1 -1.314270E-3 3.405420E-4 1.901990E-3  
0.000000E+0 -1.314270E-3 5.364200E-3 3.081860E-3 2.263020E-3  
0.000000E+0 3.405420E-4 3.081860E-3 3.418820E-3 2.616460E-3  
0.000000E+0 1.901990E-3 2.263020E-3 2.616460E-3 2.624930E-3

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
2 21 4.11435E-07  
3 22 4.25016E-07  
4 18 4.50446E-07  
5 19 4.83439E-07  
6 12 5.26327E-07  
7 15 5.70111E-07  
8 26 6.26232E-07  
9 23 6.81471E-07  
10 30 7.42854E-07  
...  
50 2 8.13509E-01  
---

Processing MAT/MF/MT,NC,NI 2725 33 107 0 2

First block of the Cov.Mtx of order 5  
0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 1.375920E-1 1.381380E-1 1.404530E-1 1.335590E-1  
0.000000E+0 1.381380E-1 1.389590E-1 1.411160E-1 1.342190E-1  
0.000000E+0 1.404530E-1 1.411160E-1 1.440020E-1 1.367160E-1

IRDFE-v1-05\_coveig.lst

0.000000E+0 1.335590E-1 1.342190E-1 1.367160E-1 1.311550E-1

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 2 5.20400E-05  
3 4 2.48028E-04  
4 5 3.74848E-04  
5 7 1.63929E-03  
6 6 6.73747E-03  
7 3 7.97506E-01

...

7 3 7.97506E-01

First block of the Cov.Mtx of order 5

0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 9.269710E-1 1.458090E-2 -8.746270E-3 1.569460E-3  
0.000000E+0 1.458090E-2 5.083900E-3 2.658310E-3 1.282560E-3  
0.000000E+0 -8.746270E-3 2.658310E-3 2.645890E-3 1.674190E-3  
0.000000E+0 1.569460E-3 1.282560E-3 1.674190E-3 1.763680E-3

Lowest eigenvalues in ascending order 33

1 1 0.00000E+00  
2 19 1.09816E-08  
3 20 1.12234E-08  
4 23 1.15711E-08  
5 22 1.21905E-08  
6 14 1.35394E-08  
7 26 1.50503E-08  
8 15 1.59841E-08  
9 27 1.88320E-08  
10 24 2.30653E-08

...

33 2 9.30559E-01

---

Processing MAT/MF/MT,NC,NI 2825 33 16 0 1

First block of the Cov.Mtx of order 5

0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 1.350420E-2 1.360290E-3 1.039390E-3 7.531910E-4  
0.000000E+0 1.360290E-3 2.492770E-3 1.227180E-3 7.881990E-4  
0.000000E+0 1.039390E-3 1.227180E-3 1.181740E-3 6.278660E-4  
0.000000E+0 7.531910E-4 7.881990E-4 6.278660E-4 5.985110E-4

Lowest eigenvalues in ascending order 49

1 1 0.00000E+00  
2 29 1.10944E-06  
3 25 1.13861E-06  
4 30 1.19404E-06  
5 26 1.27382E-06  
6 32 1.34276E-06  
7 19 1.42262E-06  
8 23 1.51210E-06  
9 21 1.62133E-06  
10 33 1.72210E-06

...

49 2 2.07278E-01

---

Processing MAT/MF/MT,NC,NI 2825 33 103 0 2

First block of the Cov.Mtx of order 5

0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0 0.000000E+0  
0.000000E+0 3.073140E-2 2.859470E-2 2.501010E-2 1.838910E-2

IRDFE-v1-05\_coveig.1st

0.0000000E+0	2.8594700E-2	2.7184200E-2	2.4238900E-2	1.7933400E-2
0.0000000E+0	2.5010100E-2	2.4238900E-2	2.2570100E-2	1.7959900E-2
0.0000000E+0	1.8389100E-2	1.7933400E-2	1.7959900E-2	1.8666100E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	3	4.20742E-05
3	5	1.93064E-04
4	4	5.22285E-04
5	7	1.71863E-03
6	6	2.52171E-02
7	2	1.16138E-01
...		
7	2	1.16138E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.5674800E-3	1.1780900E-3	2.7633400E-4	2.2516600E-4
0.0000000E+0	1.1780900E-3	1.0037100E-3	4.5670200E-4	1.8194300E-4
0.0000000E+0	2.7633400E-4	4.5670200E-4	4.6869300E-4	3.5985000E-4
0.0000000E+0	2.2516600E-4	1.8194300E-4	3.5985000E-4	4.6984800E-4

Lowest eigenvalues in ascending order 38

1	1	0.00000E+00
2	11	2.98127E-08
3	17	3.02008E-08
4	24	3.03488E-08
5	20	3.17274E-08
6	8	3.23051E-08
7	21	3.27524E-08
8	22	3.37126E-08
9	12	3.53861E-08
10	14	3.71190E-08
...		
38	2	3.31282E-02
---		

Processing MAT/MF/MT,NC,NI 2831 33 103 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.4332900E-2	3.3832100E-2	3.3190900E-2	3.2422500E-2
0.0000000E+0	3.3832100E-2	3.3447200E-2	3.2891700E-2	3.2219100E-2
0.0000000E+0	3.3190900E-2	3.2891700E-2	3.2524600E-2	3.2071000E-2
0.0000000E+0	3.2422500E-2	3.2219100E-2	3.2071000E-2	3.1901300E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	3	3.58284E-06
3	4	3.55934E-05
4	5	7.36496E-05
5	6	1.14203E-03
6	7	2.62120E-03
7	2	1.82714E-01
...		
7	2	1.82714E-01

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	1.2442300E-1	2.1261300E-2	2.0566600E-2	1.2432500E-2
0.0000000E+0	2.1261300E-2	1.8461200E-2	4.4133400E-3	2.9021000E-3
0.0000000E+0	2.0566600E-2	4.4133400E-3	5.5595600E-3	2.9183200E-3
0.0000000E+0	1.2432500E-2	2.9021000E-3	2.9183200E-3	2.2988000E-3

IRDFE-v1-05\_coveig.1st

Lowest eigenvalues in ascending order 36

```

1  1  0.00000E+00
2  18 1.73678E-06
3  19 1.78930E-06
4  20 1.87208E-06
5  14 2.00298E-06
6  22 2.16014E-06
7  21 2.36692E-06
8  16 2.64287E-06
9  23 2.91380E-06
10 17 3.36612E-06
...
36  2 1.35417E-01
---
```

Processing MAT/MF/MT,NC,NI 2925 33 16 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  1.9524600E-2  1.3042200E-2  6.9859900E-3  5.6133700E-3
0.0000000E+0  1.3042200E-2  1.8866800E-2  2.0177900E-2  1.8335100E-2
0.0000000E+0  6.9859900E-3  2.0177900E-2  2.6502800E-2  2.4685000E-2
0.0000000E+0  5.6133700E-3  1.8335100E-2  2.4685000E-2  2.3129100E-2
```

Lowest eigenvalues in ascending order 7

```

1  1  0.00000E+00
2  3  8.16663E-06
3  6  2.98783E-05
4  5  2.47076E-04
5  7  8.85069E-04
6  4  2.03659E-02
7  2  1.05663E-01
...
7  2  1.05663E-01
```

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  1.9132800E-2  1.3824100E-3  1.9265700E-3  1.8735000E-3
0.0000000E+0  1.3824100E-3  1.1967200E-3  9.7430000E-4  8.5541700E-4
0.0000000E+0  1.9265700E-3  9.7430000E-4  1.1456800E-3  9.8768300E-4
0.0000000E+0  1.8735000E-3  8.5541700E-4  9.8768300E-4  9.7290300E-4
```

Lowest eigenvalues in ascending order 34

```

1  1  0.00000E+00
2  14 7.41829E-07
3  8  7.59889E-07
4  16 7.91530E-07
5  22 8.38476E-07
6  17 8.81225E-07
7  28 9.11027E-07
8  11 9.45004E-07
9  27 9.84979E-07
10 26 1.03112E-06
...
34  2 2.03005E-02
---
```

Processing MAT/MF/MT,NC,NI 2925 33 102 0 4

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  3.0468700E-2  3.0299000E-2  3.0699700E-2  3.1094400E-2
0.0000000E+0  3.0299000E-2  3.0181100E-2  3.0569500E-2  3.0932000E-2
0.0000000E+0  3.0699700E-2  3.0569500E-2  3.1000000E-2  3.1370300E-2
```

IRDFF-v1-05\_coveig.lst

0.000000E+0 3.1094400E-2 3.0932000E-2 3.1370300E-2 3.1849400E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 3 5.15004E-06  
3 5 1.17297E-05  
4 4 2.58225E-05  
5 6 9.37180E-05  
6 7 2.94470E-04  
7 2 1.86982E-01

...  
7 2 1.86982E-01  
Dont know how to process covariance LB= 1 MT 102  
Dont know how to process covariance LB= 1 MT 102  
Dont know how to process covariance LB= 8 MT 102  
---

Processing MAT/MF/MT,NC,NI 2925 33 107 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 1.8190400E-1 1.8523000E-1 1.8384200E-1 1.7802800E-1  
0.0000000E+0 1.8523000E-1 1.8930200E-1 1.8850200E-1 1.8177800E-1  
0.0000000E+0 1.8384200E-1 1.8850200E-1 1.8839900E-1 1.8099400E-1  
0.0000000E+0 1.7802800E-1 1.8177800E-1 1.8099400E-1 1.7497200E-1

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 2 1.52846E-05  
3 5 6.30860E-05  
4 6 1.61683E-04  
5 7 1.03306E-03  
6 4 1.71979E-03  
7 3 1.06949E+00

...  
7 3 1.06949E+00

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 8.2855700E-2 9.0497400E-4 5.0251100E-4 1.0695800E-4  
0.0000000E+0 9.0497400E-4 2.6786500E-3 1.1280000E-3 5.0780500E-4  
0.0000000E+0 5.0251100E-4 1.1280000E-3 1.4603400E-3 1.1276300E-3  
0.0000000E+0 1.0695800E-4 5.0780500E-4 1.1276300E-3 1.4376900E-3

Lowest eigenvalues in ascending order 26

1 1 0.00000E+00  
2 11 6.72263E-07  
3 12 6.91060E-07  
4 15 7.27053E-07  
5 13 7.80912E-07  
6 16 8.73612E-07  
7 17 1.00239E-06  
8 19 1.14836E-06  
9 20 1.39233E-06  
10 23 1.71679E-06

...  
26 2 8.28804E-02  
---

Processing MAT/MF/MT,NC,NI 2931 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 5.3422300E-3 5.8468900E-3 3.8819200E-3 3.4674100E-3

```

                                IRDFF-v1-05_coveig.1st
0.0000000E+0  5.8468900E-3  1.3156800E-2  1.9050400E-2  1.8156800E-2
0.0000000E+0  3.8819200E-3  1.9050400E-2  3.6674900E-2  3.5567000E-2
0.0000000E+0  3.4674100E-3  1.8156800E-2  3.5567000E-2  3.4680300E-2

```

Lowest eigenvalues in ascending order 7

```

1  1  0.00000E+00
2  7  9.91708E-06
3  6  7.55547E-05
4  2  1.50060E-04
5  5  8.21178E-04
6  3  7.70278E-03
7  4  1.35967E-01
...
7  4  1.35967E-01

```

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  1.9390600E-2  1.5862700E-3  1.6724600E-3  1.5962500E-3
0.0000000E+0  1.5862700E-3  2.0700700E-3  1.2055000E-3  9.4154100E-4
0.0000000E+0  1.6724600E-3  1.2055000E-3  1.3151800E-3  1.1013300E-3
0.0000000E+0  1.5962500E-3  9.4154100E-4  1.1013300E-3  1.1183100E-3

```

Lowest eigenvalues in ascending order 36

```

1  1  0.00000E+00
2  11 2.04609E-06
3  13 2.06785E-06
4  10 2.10357E-06
5  24 2.13575E-06
6  27 2.20226E-06
7  15 2.27121E-06
8  28 2.32645E-06
9  35 2.39090E-06
10 26 2.46571E-06
...
36  2 2.09712E-02
---
```

Processing MAT/MF/MT,NC,NI 3025 33 103 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  1.9472200E-2  1.7422100E-2  1.2747700E-2  9.2924000E-3
0.0000000E+0  1.7422100E-2  1.7434200E-2  1.4789700E-2  1.1451100E-2
0.0000000E+0  1.2747700E-2  1.4789700E-2  1.6296900E-2  1.3318600E-2
0.0000000E+0  9.2924000E-3  1.1451100E-2  1.3318600E-2  1.2860900E-2

```

Lowest eigenvalues in ascending order 7

```

1  1  0.00000E+00
2  3  1.89622E-04
3  5  3.98095E-04
4  7  1.36479E-03
5  6  2.77749E-03
6  4  1.16422E-02
7  2  7.78928E-02
...
7  2  7.78928E-02

```

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  3.2255700E-2  2.8278700E-3  1.0196000E-3  1.3268500E-4
0.0000000E+0  2.8278700E-3  1.8973900E-3  1.3402800E-3  9.1904700E-4
0.0000000E+0  1.0196000E-3  1.3402800E-3  1.3213400E-3  1.0691100E-3
0.0000000E+0  1.3268500E-4  9.1904700E-4  1.0691100E-3  1.0525900E-3

```

IRDFE-v1-05\_coveig.1st

Lowest eigenvalues in ascending order 50

```

1  1  0.00000E+00
2  28 5.49216E-08
3  31 5.72025E-08
4  29 5.93015E-08
5  37 6.13126E-08
6  11 6.42978E-08
7  24 6.70648E-08
8  23 6.81446E-08
9  38 7.11724E-08
10 14 7.32499E-08
...
50  2 3.28604E-02
---
```

Processing MAT/MF/MT,NC,NI 3034 33 103 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  2.3549900E-2  2.0759000E-2  1.8171800E-2  1.6672000E-2
0.0000000E+0  2.0759000E-2  1.8697700E-2  1.6712600E-2  1.5379000E-2
0.0000000E+0  1.8171800E-2  1.6712600E-2  1.5600000E-2  1.4662100E-2
0.0000000E+0  1.6672000E-2  1.5379000E-2  1.4662100E-2  1.4550100E-2
```

Lowest eigenvalues in ascending order 7

```

1  1  0.00000E+00
2  3  4.46236E-05
3  7  1.69722E-04
4  4  3.12176E-04
5  6  5.43609E-04
6  5  4.14260E-03
7  2  9.75591E-02
...
7  2  9.75591E-02
```

First block of the Cov.Mtx of order 5

```

6.2500000E-2  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  5.0067600E-2  2.5834100E-3  2.5374500E-3  2.4504000E-3
0.0000000E+0  2.5834100E-3  6.0673800E-3  3.9002200E-3  3.7642200E-3
0.0000000E+0  2.5374500E-3  3.9002200E-3  4.8071800E-3  3.7084000E-3
0.0000000E+0  2.4504000E-3  3.7642200E-3  3.7084000E-3  4.1241100E-3
```

Lowest eigenvalues in ascending order 50

```

1  34 1.81445E-06
2  20 1.83433E-06
3  35 1.86622E-06
4  21 1.92207E-06
5  28 1.98882E-06
6  32 2.06659E-06
7  19 2.16819E-06
8  37 2.29676E-06
9  24 2.40998E-06
10 18 2.60980E-06
...
50  2 3.59739E-01
---
```

Processing MAT/MF/MT,NC,NI 3325 33 16 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0  0.0000000E+0
0.0000000E+0  1.8849400E-3  4.4017600E-3  5.3437900E-3  4.9210500E-3
0.0000000E+0  4.4017600E-3  1.4739400E-2  1.9067000E-2  1.7604700E-2
0.0000000E+0  5.3437900E-3  1.9067000E-2  2.5065600E-2  2.3241400E-2
```

IRDFE-v1-05\_coveig.1st  
0.000000E+0 4.9210500E-3 1.7604700E-2 2.3241400E-2 2.1687600E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 5 9.64241E-06  
3 3 1.30170E-05  
4 6 8.21190E-05  
5 2 6.89131E-04  
6 7 1.15114E-03  
7 4 9.86590E-02  
...  
7 4 9.86590E-02

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 4.8763100E-2 3.0088500E-2 1.9330700E-2 1.1047600E-2  
0.0000000E+0 3.0088500E-2 2.5161400E-2 1.7071700E-2 1.0530700E-2  
0.0000000E+0 1.9330700E-2 1.7071700E-2 1.3142900E-2 9.0215700E-3  
0.0000000E+0 1.1047600E-2 1.0530700E-2 9.0215700E-3 6.8920800E-3

Lowest eigenvalues in ascending order 20

1 1 0.00000E+00  
2 16 5.35512E-06  
3 17 5.39237E-06  
4 13 5.42446E-06  
5 11 5.50210E-06  
6 10 5.56656E-06  
7 6 5.75484E-06  
8 18 6.11055E-06  
9 14 6.70213E-06  
10 9 7.72265E-06  
...  
20 2 9.08387E-02  
---

Processing MAT/MF/MT,NC,NI 3925 33 16 0 2

First block of the Cov.Mtx of order 4

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 2.1010500E-2 2.0908600E-2 1.9591700E-2  
0.0000000E+0 2.0908600E-2 2.0944100E-2 1.9755300E-2  
0.0000000E+0 1.9591700E-2 1.9755300E-2 1.8804300E-2

Lowest eigenvalues in ascending order 4

1 1 0.00000E+00  
2 3 7.86012E-06  
3 4 2.84774E-04  
4 2 6.04663E-02  
...  
4 2 6.04663E-02

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 2.4346300E-2 4.6180800E-3 7.7619200E-4 -3.2336000E-5  
0.0000000E+0 4.6180800E-3 5.1242400E-3 2.4765000E-3 4.5277100E-4  
0.0000000E+0 7.7619200E-4 2.4765000E-3 2.9161400E-3 9.3506600E-4  
0.0000000E+0 -3.2336000E-5 4.5277100E-4 9.3506600E-4 1.0972900E-3

Lowest eigenvalues in ascending order 42

1 1 0.00000E+00  
2 22 7.97001E-06  
3 21 8.03079E-06  
4 20 8.12130E-06  
5 23 8.23307E-06

IRDFE-v1-05\_coveig.1st

```

6 18 8.37135E-06
7 24 8.57450E-06
8 16 8.90470E-06
9 9 9.39051E-06
10 14 9.99522E-06
...
42 3 7.81287E-02
---
```

Processing MAT/MF/MT,NC,NI 4025 33 16 0 2

First block of the Cov.Mtx of order 5

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 2.1105100E-3 3.5558300E-4 -2.6752200E-3 -2.9740900E-3
0.0000000E+0 3.5558300E-4 4.0632800E-3 8.1638200E-3 8.0976900E-3
0.0000000E+0 -2.6752200E-3 8.1638200E-3 2.4413600E-2 2.5125000E-2
0.0000000E+0 -2.9740900E-3 8.0976900E-3 2.5125000E-2 2.6030800E-2
```

Lowest eigenvalues in ascending order 7

```

1 1 0.00000E+00
2 6 5.12999E-06
3 7 2.79486E-05
4 2 2.59213E-04
5 5 4.81760E-04
6 3 2.92946E-03
7 4 9.57493E-02
...
7 4 9.57493E-02
```

First block of the Cov.Mtx of order 5

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 6.2044100E-3 1.1597100E-3 -1.1696900E-5 -2.9978000E-4
0.0000000E+0 1.1597100E-3 1.4384100E-3 8.5240300E-4 5.5072500E-4
0.0000000E+0 -1.1696900E-5 8.5240300E-4 9.6556700E-4 7.0709300E-4
0.0000000E+0 -2.9978000E-4 5.5072500E-4 7.0709300E-4 6.1723200E-4
```

Lowest eigenvalues in ascending order 47

```

1 1 0.00000E+00
2 29 6.23567E-07
3 31 6.27850E-07
4 17 6.34905E-07
5 27 6.45558E-07
6 26 6.61804E-07
7 30 6.76521E-07
8 34 6.97984E-07
9 11 7.31988E-07
10 14 7.62917E-07
...
47 2 4.86308E-01
---
```

Processing MAT/MF/MT,NC,NI 4125 33 1 0 1

First block of the Cov.Mtx of order 5

```

2.5600000E-4 3.3300000E-5 7.0400000E-6 1.0400000E-5 6.4000000E-6
3.3300000E-5 2.5600000E-4 2.2900000E-5 8.3200000E-6 6.4000000E-6
7.0400000E-6 2.2900000E-5 1.2100000E-4 1.1400000E-5 7.9200000E-6
1.0400000E-5 8.3200000E-6 1.1400000E-5 1.6900000E-4 1.1400000E-5
6.4000000E-6 6.4000000E-6 7.9200000E-6 1.1400000E-5 6.4000000E-5
```

Lowest eigenvalues in ascending order 12

```

1 8 2.35778E-05
2 7 2.85408E-05
3 11 3.56986E-05
```

IRDFE-v1-05\_coveig.lst

4 9 4.00663E-05  
5 6 4.60559E-05  
6 10 6.97284E-05  
7 5 9.65103E-05  
8 3 1.16863E-04  
9 12 1.70400E-04  
10 4 1.86718E-04  
...  
12 1 2.94894E-04  
---

Processing MAT/MF/MT,NC,NI 4125 33 2 0 1  
Dont know how to process covariance LB= 1 MT 2  
---

Processing MAT/MF/MT,NC,NI 4125 33 102 0 2

First block of the Cov.Mtx of order 5  
4.6187100E-3 2.8156400E-3 2.5268700E-3 1.6439000E-3 1.1293400E-3  
2.8156400E-3 3.8750900E-3 2.2291900E-3 1.2099400E-3 1.0943100E-3  
2.5268700E-3 2.2291900E-3 3.4084100E-3 2.0110100E-3 1.1396200E-3  
1.6439000E-3 1.2099400E-3 2.0110100E-3 1.8812200E-3 1.4642000E-3  
1.1293400E-3 1.0943100E-3 1.1396200E-3 1.4642000E-3 1.4541600E-3

Lowest eigenvalues in ascending order 37  
1 28 6.25981E-06  
2 6 7.02448E-06  
3 29 8.25850E-06  
4 31 9.97244E-06  
5 32 1.13840E-05  
6 4 1.25415E-05  
7 36 1.42463E-05  
8 34 1.72831E-05  
9 35 2.02989E-05  
10 7 2.33980E-05  
...  
37 1 6.06179E-02

First block of the Cov.Mtx of order 5  
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 2.7540500E-4 2.2276900E-4 1.8716500E-4 1.5315900E-4  
0.0000000E+0 2.2276900E-4 1.9626700E-4 1.7510700E-4 1.5183200E-4  
0.0000000E+0 1.8716500E-4 1.7510700E-4 1.6242100E-4 1.4598300E-4  
0.0000000E+0 1.5315900E-4 1.5183200E-4 1.4598300E-4 1.3565600E-4

Lowest eigenvalues in ascending order 48  
1 1 0.00000E+00  
2 5 1.59531E-09  
3 6 2.60402E-09  
4 11 3.64990E-09  
5 7 4.82219E-09  
6 10 5.95139E-09  
7 3 8.42584E-09  
8 8 1.17133E-08  
9 12 1.62965E-08  
10 14 2.27954E-08  
...  
48 2 1.38041E-01  
---

Processing MAT/MF/MT,NC,NI 5325 33 16 0 2

First block of the Cov.Mtx of order 5  
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0

IRDFE-v1-05\_coveig.lst

0.000000E+0	5.217240E-3	6.736540E-3	6.557380E-3	5.930500E-3
0.000000E+0	6.736540E-3	1.652310E-2	1.873760E-2	1.711430E-2
0.000000E+0	6.557380E-3	1.873760E-2	2.195200E-2	2.010780E-2
0.000000E+0	5.930500E-3	1.711430E-2	2.010780E-2	1.856710E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	5	1.56507E-05
3	3	6.78879E-05
4	7	1.33761E-04
5	6	6.31041E-04
6	2	3.57039E-03
7	4	8.82257E-02
...		
7	4	8.82257E-02

First block of the Cov.Mtx of order 5

0.000000E+0	0.000000E+0	0.000000E+0	0.000000E+0	0.000000E+0
0.000000E+0	4.447700E-2	-8.244460E-3	6.967980E-4	4.767560E-3
0.000000E+0	-8.244460E-3	5.747240E-3	3.710660E-3	1.741910E-3
0.000000E+0	6.967980E-4	3.710660E-3	4.415170E-3	3.299230E-3
0.000000E+0	4.767560E-3	1.741910E-3	3.299230E-3	3.023370E-3

Lowest eigenvalues in ascending order 35

1	1	0.00000E+00
2	18	1.13635E-07
3	20	1.14919E-07
4	11	1.16818E-07
5	17	1.18774E-07
6	10	1.22997E-07
7	23	1.26313E-07
8	16	1.31533E-07
9	21	1.35433E-07
10	12	1.43365E-07
...		
35	2	6.11561E-02
---		

Processing MAT/MF/MT,NC,NI 5728 33 102 0 4

First block of the Cov.Mtx of order 5

0.000000E+0	0.000000E+0	0.000000E+0	0.000000E+0	0.000000E+0
0.000000E+0	2.672640E-2	2.625210E-2	2.592090E-2	2.697320E-2
0.000000E+0	2.625210E-2	2.586670E-2	2.556200E-2	2.651920E-2
0.000000E+0	2.592090E-2	2.556200E-2	2.530830E-2	2.620540E-2
0.000000E+0	2.697320E-2	2.651920E-2	2.620540E-2	2.742860E-2

Lowest eigenvalues in ascending order 7

1	1	0.00000E+00
2	3	1.19348E-05
3	7	3.41372E-05
4	4	5.82898E-05
5	5	1.48903E-04
6	6	1.36705E-03
7	2	1.62466E-01
...		
7	2	1.62466E-01

First block of the Cov.Mtx of order 5

3.767710E-3	2.067300E-3	2.139120E-3	1.031770E-3	6.641270E-4
2.067300E-3	3.561890E-3	1.793850E-3	1.122410E-3	6.875010E-4
2.139120E-3	1.793850E-3	3.473920E-3	1.593070E-3	7.020780E-4
1.031770E-3	1.122410E-3	1.593070E-3	2.132550E-3	7.478990E-4
6.641270E-4	6.875010E-4	7.020780E-4	7.478990E-4	6.664840E-4

IRDFE-v1-05\_coveig.lst

Lowest eigenvalues in ascending order 17

1 17 0.00000E+00  
2 8 1.29979E-04  
3 10 1.80011E-04  
4 13 2.41629E-04  
5 15 2.69105E-04  
6 5 3.03942E-04  
7 12 3.53904E-04  
8 11 4.83941E-04  
9 9 5.72810E-04  
10 7 6.17196E-04

...

17 1 2.89526E-02

Dont know how to process covariance LB= 1 MT 102

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	4.3732200E-3	4.2576000E-3	4.1904900E-3	4.1710600E-3
0.0000000E+0	4.2576000E-3	4.4805000E-3	4.4961600E-3	4.4293200E-3
0.0000000E+0	4.1904900E-3	4.4961600E-3	4.6014200E-3	4.6045000E-3
0.0000000E+0	4.1710600E-3	4.4293200E-3	4.6045000E-3	4.7437100E-3

Lowest eigenvalues in ascending order 29

1 1 0.00000E+00  
2 4 3.06986E-06  
3 2 1.61890E-05  
4 5 1.34128E-04  
5 9 1.94888E-04  
6 7 3.34137E-04  
7 15 3.80435E-04  
8 6 4.59458E-04  
9 8 6.24206E-04  
10 16 6.66529E-04

...

29 3 1.84247E-01

---

Processing MAT/MF/MT,NC,NI 5925 33 16 0 2

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	8.1831200E-3	9.9628100E-3	9.0258000E-3	7.7933300E-3
0.0000000E+0	9.9628100E-3	1.9294600E-2	2.0344700E-2	1.8145900E-2
0.0000000E+0	9.0258000E-3	2.0344700E-2	2.2339000E-2	2.0190000E-2
0.0000000E+0	7.7933300E-3	1.8145900E-2	2.0190000E-2	1.8422200E-2

Lowest eigenvalues in ascending order 7

1 1 0.00000E+00  
2 6 3.58773E-06  
3 5 1.32440E-05  
4 2 4.12938E-05  
5 7 6.74208E-04  
6 4 5.60210E-03  
7 3 9.35754E-02

...

7 3 9.35754E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	7.6297100E-2	5.2706400E-2	3.3763200E-2	2.0745200E-2
0.0000000E+0	5.2706400E-2	4.0164900E-2	2.8095500E-2	1.9004900E-2
0.0000000E+0	3.3763200E-2	2.8095500E-2	2.1455500E-2	1.5710000E-2
0.0000000E+0	2.0745200E-2	1.9004900E-2	1.5710000E-2	1.2360300E-2

IRDFE-v1-05\_coveig.1st

Lowest eigenvalues in ascending order 19

```
1 1 0.00000E+00
2 15 6.47531E-06
3 16 6.49795E-06
4 17 6.57436E-06
5 14 6.70858E-06
6 12 6.90973E-06
7 11 7.20716E-06
8 10 7.64592E-06
9 8 8.30016E-06
10 13 9.35430E-06
...
19 2 1.53270E-01
---
```

Processing MAT/MF/MT,NC,NI 6925 33 16 0 2

First block of the Cov.Mtx of order 4

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 1.5337500E-2 1.4821400E-2 1.3595600E-2
0.0000000E+0 1.4821400E-2 1.4401000E-2 1.3266400E-2
0.0000000E+0 1.3595600E-2 1.3266400E-2 1.2309700E-2
```

Lowest eigenvalues in ascending order 4

```
1 1 0.00000E+00
2 3 9.57402E-06
3 4 1.44011E-04
4 2 4.18946E-02
...
4 2 4.18946E-02
```

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 9.8029400E-2 4.2677400E-3 3.4799600E-3 3.1161100E-3
0.0000000E+0 4.2677400E-3 2.7911600E-3 1.5409700E-3 9.6154300E-4
0.0000000E+0 3.4799600E-3 1.5409700E-3 1.2737000E-3 7.9807700E-4
0.0000000E+0 3.1161100E-3 9.6154300E-4 7.9807700E-4 7.4189400E-4
```

Lowest eigenvalues in ascending order 48

```
1 1 0.00000E+00
2 9 1.57658E-05
3 16 1.58376E-05
4 18 1.59214E-05
5 17 1.60190E-05
6 15 1.61326E-05
7 19 1.62662E-05
8 20 1.64906E-05
9 14 1.68235E-05
10 13 1.72554E-05
...
48 2 1.27381E-01
---
```

Processing MAT/MF/MT,NC,NI 6925 33 17 0 1

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 5.0118100E-1 7.6803500E-3 5.1601300E-3 6.0883800E-3
0.0000000E+0 7.6803500E-3 3.7396300E-2 4.1954800E-3 4.6253600E-3
0.0000000E+0 5.1601300E-3 4.1954800E-3 8.2107600E-3 5.6142700E-3
0.0000000E+0 6.0883800E-3 4.6253600E-3 5.6142700E-3 6.3931700E-3
```

Lowest eigenvalues in ascending order 50

IRDFE-v1-05\_coveig.lst

```

1  1 0.00000E+00
2  23 3.93883E-06
3  21 3.97673E-06
4  24 4.02910E-06
5  20 4.11285E-06
6  25 4.21200E-06
7  18 4.34568E-06
8  17 4.50841E-06
9  26 4.72954E-06
10 15 4.99340E-06
...
50  2 5.03713E-01
---
```

```

Processing MAT/MF/MT,NC,NI 7328 33 102 0 1
Dont know how to process covariance LB= 1 MT 102
---
```

```

Processing MAT/MF/MT,NC,NI 7443 33 102 0 1
```

```

First block of the Cov.Mtx of order 5
```

```

2.4960600E-3 -3.6666800E-4 -1.4878700E-3 1.1684100E-4 -1.1416200E-6
-3.6666800E-4 1.1310400E-3 1.3805300E-3 3.0277200E-4 3.0320300E-5
-1.4878700E-3 1.3805300E-3 2.2608900E-3 2.7737500E-4 3.0863500E-5
1.1684100E-4 3.0277200E-4 2.7737500E-4 1.0397700E-4 1.1673100E-5
-1.1416200E-6 3.0320300E-5 3.0863500E-5 1.1673100E-5 2.9980100E-4
```

```

Lowest eigenvalues in ascending order 45
```

```

1  4 2.92228E-06
2  3 5.08331E-05
3  7 6.99121E-05
4  16 1.00948E-04
5  8 1.41506E-04
6  17 1.48029E-04
7  10 1.67921E-04
8  9 2.32011E-04
9  5 2.92367E-04
10 15 3.07857E-04
...
45 45 1.85367E+00
---
```

```

Processing MAT/MF/MT,NC,NI 7925 33 16 0 2
```

```

First block of the Cov.Mtx of order 4
```

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 2.0121500E-2 1.9188000E-2 1.7743400E-2
0.0000000E+0 1.9188000E-2 1.8510100E-2 1.7040900E-2
0.0000000E+0 1.7743400E-2 1.7040900E-2 1.5867800E-2
```

```

Lowest eigenvalues in ascending order 4
```

```

1  1 0.00000E+00
2  4 9.45353E-05
3  3 1.27243E-04
4  2 5.42776E-02
...
4  2 5.42776E-02
```

```

First block of the Cov.Mtx of order 5
```

```

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 2.4289500E-2 9.8042200E-4 -1.6009100E-3 1.0217000E-3
0.0000000E+0 9.8042200E-4 1.8252100E-3 1.0356300E-3 3.3095200E-4
0.0000000E+0 -1.6009100E-3 1.0356300E-3 1.3158800E-3 7.1379300E-4
0.0000000E+0 1.0217000E-3 3.3095200E-4 7.1379300E-4 9.3823500E-4
```

IRDFE-v1-05\_coveig.1st

Lowest eigenvalues in ascending order 46

```
1 1 0.00000E+00
2 16 5.11633E-07
3 8 5.13996E-07
4 15 5.16905E-07
5 23 5.20935E-07
6 17 5.28446E-07
7 12 5.47193E-07
8 9 5.75940E-07
9 18 6.30263E-07
10 24 6.84067E-07
...
46 3 3.81316E-02
---
```

Processing MAT/MF/MT,NC,NI 7925 33 102 0 5

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 2.2675500E-2 2.2689500E-2 2.2976200E-2 2.3083400E-2
0.0000000E+0 2.2689500E-2 2.2912900E-2 2.2971900E-2 2.3220900E-2
0.0000000E+0 2.2976200E-2 2.2971900E-2 2.3336100E-2 2.3429500E-2
0.0000000E+0 2.3083400E-2 2.3220900E-2 2.3429500E-2 2.3625300E-2
```

Lowest eigenvalues in ascending order 5

```
1 1 0.00000E+00
2 4 2.02708E-06
3 5 4.58487E-05
4 2 1.72511E-04
5 3 9.23294E-02
...
5 3 9.23294E-02
```

First block of the Cov.Mtx of order 5

```
5.1085800E-4 3.2599200E-4 8.7469900E-5 1.2784500E-4 1.9265900E-4
3.2599200E-4 4.5998500E-4 2.1208900E-4 1.3713600E-4 1.3965500E-4
8.7469900E-5 2.1208900E-4 4.0259800E-4 3.1270600E-4 7.6516400E-5
1.2784500E-4 1.3713600E-4 3.1270600E-4 4.4342800E-4 3.2941700E-4
1.9265900E-4 1.3965500E-4 7.6516400E-5 3.2941700E-4 4.6790100E-4
```

Lowest eigenvalues in ascending order 46

```
1 25 1.52375E-09
2 26 1.01383E-08
3 10 1.11108E-08
4 9 1.79621E-08
5 8 2.43201E-08
6 11 2.78766E-08
7 12 3.08188E-08
8 14 3.87421E-08
9 19 4.28243E-08
10 22 5.32990E-08
...
46 1 5.83808E-03
```

Dont know how to process covariance LB= 1 MT 102

First block of the Cov.Mtx of order 5

```
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 2.1220000E-4
```

Lowest eigenvalues in ascending order 69

IRDFE-v1-05\_coveig.lst

1 1 0.00000E+00  
2 2 0.00000E+00  
3 3 0.00000E+00  
4 4 0.00000E+00  
5 14 2.39923E-05  
6 19 2.64519E-05  
7 13 3.33026E-05  
8 16 3.51039E-05  
9 15 3.79621E-05  
10 8 4.00704E-05  
...  
69 57 2.01583E-03

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	0.0000000E+0	2.5789700E-4	3.0774400E-4	3.0994500E-4
0.0000000E+0	0.0000000E+0	3.0774400E-4	4.4696000E-4	5.4943400E-4
0.0000000E+0	0.0000000E+0	3.0994500E-4	5.4943400E-4	8.1652500E-4

Lowest eigenvalues in ascending order 26

1 1 0.00000E+00  
2 2 0.00000E+00  
3 3 2.61463E-07  
4 4 6.60825E-07  
5 5 3.40091E-06  
6 8 1.69954E-05  
7 17 2.35148E-05  
8 6 5.03797E-05  
9 11 9.28654E-05  
10 7 2.46189E-04  
...  
26 26 4.21055E-01  
---

Processing MAT/MF/MT,NC,NI 8325 33 17 0 1

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	3.5460100E-1	4.7104600E-3	3.9476800E-3	3.6867700E-3
0.0000000E+0	4.7104600E-3	1.1202500E-2	4.9239200E-3	4.4770800E-3
0.0000000E+0	3.9476800E-3	4.9239200E-3	6.2329000E-3	4.8118300E-3
0.0000000E+0	3.6867700E-3	4.4770800E-3	4.8118300E-3	4.9796400E-3

Lowest eigenvalues in ascending order 43

1 1 0.00000E+00  
2 22 4.31120E-06  
3 23 4.35453E-06  
4 17 4.43508E-06  
5 19 4.55397E-06  
6 16 4.70814E-06  
7 21 4.87856E-06  
8 25 5.14048E-06  
9 24 5.48415E-06  
10 18 5.89849E-06  
...  
43 2 3.74513E-01  
---

Processing MAT/MF/MT,NC,NI 9040 33 18 0 2

Dont know how to process covariance LB= 1 MT 18

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
--------------	--------------	--------------	--------------	--------------

```

                                IRDFF-v1-05_coveig.lst
0.0000000E+0  4.1297800E-1  7.9145400E-2  6.9707400E-2  6.5410100E-2
0.0000000E+0  7.9145400E-2  5.6919500E-1  8.2879900E-2  7.7371100E-2
0.0000000E+0  6.9707400E-2  8.2879900E-2  4.3345500E-1  6.8833000E-2
0.0000000E+0  6.5410100E-2  7.7371100E-2  6.8833000E-2  3.9244900E-1

```

Lowest eigenvalues in ascending order 30

```

1  1  0.00000E+00
2  16 4.55770E-06
3  15 5.45194E-06
4  17 8.10049E-06
5  18 1.37061E-05
6  14 1.99362E-05
7  22 2.43123E-05
8  21 3.02978E-05
9  19 3.65979E-05
10 25 4.09126E-05
...
30  3 9.33658E-01
---
```

Processing MAT/MF/MT,NC,NI 9040 33 102 0 1

First block of the Cov.Mtx of order 5

```

1.1329500E-4  8.8301400E-5  3.6229800E-6  9.4005400E-5  1.0622000E-5
8.8301400E-5  1.1462900E-4  1.0878900E-5  1.5242700E-4  1.5451800E-5
3.6229800E-6  1.0878900E-5  7.4749800E-4  1.0329400E-6  6.6036000E-8
9.4005400E-5  1.5242700E-4  1.0329400E-6  5.5237200E-3  1.6205500E-6
1.0622000E-5  1.5451800E-5  6.6036000E-8  1.6205500E-6  7.7184000E-4

```

Lowest eigenvalues in ascending order 42

```

1  10 1.20829E-10
2  13 3.13051E-10
3  12 1.66670E-06
4  11 1.97872E-05
5  17 2.12050E-05
6  1  2.52942E-05
7  21 1.15639E-04
8  2  1.95758E-04
9  20 2.52646E-04
10 14 3.20677E-04
...
42 16 3.90633E-01
---
```

Processing MAT/MF/MT,NC,NI 9228 33 18 0 2

First block of the Cov.Mtx of order 5

```

3.0580000E-6  2.6210000E-6  2.2270000E-6  2.1670000E-6  2.1520000E-6
2.6210000E-6  1.6510000E-5  6.9550000E-6  6.7260000E-6  6.7270000E-6
2.2270000E-6  6.9550000E-6  1.6290000E-5  1.1470000E-5  1.1740000E-5
2.1670000E-6  6.7260000E-6  1.1470000E-5  1.8270000E-5  1.2410000E-5
2.1520000E-6  6.7270000E-6  1.1740000E-5  1.2410000E-5  2.1150000E-5

```

Lowest eigenvalues in ascending order 161

```

1  1  2.46827E-06
2  6  5.56965E-06
3  4  5.64652E-06
4  5  7.02852E-06
5  7  7.24933E-06
6  15 7.82209E-06
7  81 7.83916E-06
8  18 8.02675E-06
9  8  8.43753E-06
10 31 9.01164E-06

```

IRDFF-v1-05\_coveig.lst

161 2 1.61299E-02  
 Dont know how to process covariance LB= 1 MT 18  
 ---

Processing MAT/MF/MT,NC,NI 9228 33 102 0 2

First block of the Cov.Mtx of order 5  
 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
 0.0000000E+0 2.5049900E-3 2.5070600E-3 2.5133200E-3 2.5082400E-3  
 0.0000000E+0 2.5070600E-3 2.5094200E-3 2.5156000E-3 2.5106400E-3  
 0.0000000E+0 2.5133200E-3 2.5156000E-3 2.5221800E-3 2.5168100E-3  
 0.0000000E+0 2.5082400E-3 2.5106400E-3 2.5168100E-3 2.5120300E-3

Lowest eigenvalues in ascending order 11

1 1 0.00000E+00  
 2 5 3.38516E-09  
 3 4 1.64178E-08  
 4 9 2.01942E-08  
 5 2 1.67243E-07  
 6 6 3.22361E-07  
 7 10 9.11300E-07  
 8 8 5.60243E-06  
 9 7 1.45884E-05  
 10 11 8.25957E-05

11 3 2.48526E-02

First block of the Cov.Mtx of order 5  
 3.5485300E-4 2.3810500E-4 1.2794800E-4 4.2405000E-5 2.4496300E-5  
 2.3810500E-4 2.5817600E-4 1.6562800E-4 6.3553800E-5 3.0643800E-5  
 1.2794800E-4 1.6562800E-4 5.2941600E-4 3.6210800E-4 7.7460000E-5  
 4.2405000E-5 6.3553800E-5 3.6210800E-4 5.7356400E-4 1.4458800E-4  
 2.4496300E-5 3.0643800E-5 7.7460000E-5 1.4458800E-4 1.1609900E-4

Lowest eigenvalues in ascending order 30

1 20 2.63030E-08  
 2 21 3.76586E-08  
 3 18 7.05185E-08  
 4 22 8.02187E-07  
 5 28 9.71374E-07  
 6 30 3.38302E-06  
 7 29 1.61611E-05  
 8 6 3.59992E-05  
 9 7 4.71981E-05  
 10 2 5.27781E-05

30 17 1.87949E+00

Processing MAT/MF/MT,NC,NI 9237 33 16 0 2

First block of the Cov.Mtx of order 5  
 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
 0.0000000E+0 2.8877400E-3 3.7236400E-3 2.9357800E-3 2.8619200E-3  
 0.0000000E+0 3.7236400E-3 1.0219500E-2 3.8123100E-3 3.6275200E-3  
 0.0000000E+0 2.9357800E-3 3.8123100E-3 2.9899200E-3 2.9091400E-3  
 0.0000000E+0 2.8619200E-3 3.6275200E-3 2.9091400E-3 2.8411300E-3

Lowest eigenvalues in ascending order 8

1 1 0.00000E+00  
 2 5 2.56823E-07  
 3 2 1.52901E-06  
 4 8 6.18655E-06

IRDFE-v1-05\_coveig.1st

5 7 1.68177E-05  
 6 4 2.42063E-03  
 7 6 4.71511E-03  
 8 3 2.67983E-02  
 ...  
 8 3 2.67983E-02

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	9.9694400E-2	1.5614300E-2	-5.3862100E-3	-3.2607300E-3
0.0000000E+0	1.5614300E-2	4.5964800E-3	-2.9855300E-5	-4.6396900E-5
0.0000000E+0	-5.3862100E-3	-2.9855300E-5	1.4826200E-3	1.0109400E-3
0.0000000E+0	-3.2607300E-3	-4.6396900E-5	1.0109400E-3	9.3409500E-4

Lowest eigenvalues in ascending order 50

1 1 0.00000E+00  
 2 27 3.54363E-07  
 3 22 3.57001E-07  
 4 29 3.60292E-07  
 5 28 3.65522E-07  
 6 26 3.70458E-07  
 7 25 3.75886E-07  
 8 30 3.83368E-07  
 9 24 3.91987E-07  
 10 23 4.00297E-07  
 ...  
 50 2 1.08298E-01  
 ---

Processing MAT/MF/MT,NC,NI 9237 33 18 0 3

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.6413750E-3	2.6183230E-3	2.6262310E-3	2.6234680E-3
0.0000000E+0	2.6183230E-3	2.6392450E-3	2.6230390E-3	2.6229410E-3
0.0000000E+0	2.6262310E-3	2.6230390E-3	2.6818480E-3	2.6274510E-3
0.0000000E+0	2.6234680E-3	2.6229410E-3	2.6274510E-3	2.6318220E-3

Lowest eigenvalues in ascending order 14

1 1 0.00000E+00  
 2 14 0.00000E+00  
 3 13 9.96953E-10  
 4 12 4.33897E-06  
 5 5 9.56207E-06  
 6 11 1.17372E-05  
 7 3 2.19116E-05  
 8 4 4.31771E-05  
 9 10 4.99466E-05  
 10 9 2.10257E-04  
 ...  
 14 2 2.85074E-02

First block of the Cov.Mtx of order 5

1.3660000E-4	5.8940000E-5	3.5860000E-5	1.9920000E-5	1.8500000E-5
5.8940000E-5	1.4610000E-4	5.4840000E-5	2.5330000E-5	1.8980000E-5
3.5860000E-5	5.4840000E-5	1.5170000E-4	3.4650000E-5	2.0020000E-5
1.9920000E-5	2.5330000E-5	3.4650000E-5	6.6940000E-5	2.8480000E-5
1.8500000E-5	1.8980000E-5	2.0020000E-5	2.8480000E-5	4.9120000E-5

Lowest eigenvalues in ascending order 92

1 13 1.23468E-05  
 2 8 1.46632E-05  
 3 5 1.59467E-05  
 4 14 1.67353E-05

IRDFE-v1-05\_coveig.lst

5 17 1.69241E-05  
6 36 1.78622E-05  
7 16 2.01033E-05  
8 9 2.11447E-05  
9 21 2.16142E-05  
10 19 2.25608E-05

...  
92 1 1.67324E-02  
Dont know how to process covariance LB= 1 MT 18  
---

Processing MAT/MF/MT,NC,NI 9237 33 102 0 2

First block of the Cov.Mtx of order 5  
0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 4.4752600E-2 4.4737300E-2 4.4705600E-2 4.4772100E-2  
0.0000000E+0 4.4737300E-2 4.4722500E-2 4.4690500E-2 4.4757200E-2  
0.0000000E+0 4.4705600E-2 4.4690500E-2 4.4658800E-2 4.4725000E-2  
0.0000000E+0 4.4772100E-2 4.4757200E-2 4.4725000E-2 4.4793400E-2

WARNING - Negative eigenvalues found MAT/MF/MT 9237 33 102

Lowest eigenvalues in ascending order 9

1 3 -2.93280E-08  
2 1 0.00000E+00  
3 4 1.53636E-08  
4 6 4.67965E-08  
5 8 1.36843E-07  
6 7 3.88588E-07  
7 5 1.99104E-06  
8 9 2.07810E-05  
9 2 3.57376E-01

...  
9 2 3.57376E-01

First block of the Cov.Mtx of order 5

3.6329800E-4 2.5588500E-4 1.6475000E-4 1.7818500E-4 1.3917700E-4  
2.5588500E-4 7.2712500E-4 2.6673900E-4 2.7391700E-4 2.0923600E-4  
1.6475000E-4 2.6673900E-4 8.3174100E-4 3.5228300E-4 2.6085100E-4  
1.7818500E-4 2.7391700E-4 3.5228300E-4 1.2560400E-3 3.4981600E-4  
1.3917700E-4 2.0923600E-4 2.6085100E-4 3.4981600E-4 2.0618000E-3

Lowest eigenvalues in ascending order 42

1 41 1.75896E-08  
2 39 1.20345E-06  
3 36 2.70343E-05  
4 15 1.23727E-04  
5 6 1.27876E-04  
6 27 1.54885E-04  
7 1 2.27241E-04  
8 20 2.30877E-04  
9 24 2.48247E-04  
10 9 2.49612E-04

...  
42 42 5.47974E-01  
---

Processing MAT/MF/MT,NC,NI 9346 33 18 0 3

First block of the Cov.Mtx of order 5

0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0 0.0000000E+0  
0.0000000E+0 1.9049000E-4 2.6093900E-4 3.1282900E-4 1.6197500E-4  
0.0000000E+0 2.6093900E-4 3.6555100E-4 4.5068100E-4 3.0190300E-4  
0.0000000E+0 3.1282900E-4 4.5068100E-4 5.8336000E-4 5.6423800E-4  
0.0000000E+0 1.6197500E-4 3.0190300E-4 5.6423800E-4 1.8167400E-3

IRDFD-v1-05\_coveig.1st

Lowest eigenvalues in ascending order 8

1 1 0.00000E+00  
2 2 2.92893E-07  
3 3 2.71778E-06  
4 8 7.66220E-06  
5 4 2.36215E-05  
6 7 2.30573E-04  
7 6 1.01664E-03  
8 5 4.26273E-03

...

8 5 4.26273E-03

Dont know how to process covariance LB= 1 MT 18

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
0.0000000E+0	2.9647500E-3	9.5706900E-4	5.8808200E-4	5.9891600E-4
0.0000000E+0	9.5706900E-4	1.4969600E-3	5.8751900E-4	3.2028800E-4
0.0000000E+0	5.8808200E-4	5.8751900E-4	8.2430700E-4	4.6040300E-4
0.0000000E+0	5.9891600E-4	3.2028800E-4	4.6040300E-4	5.6449100E-4

Lowest eigenvalues in ascending order 49

1 1 0.00000E+00  
2 27 1.49441E-07  
3 9 1.51749E-07  
4 46 1.52385E-07  
5 31 1.53474E-07  
6 7 1.53919E-07  
7 35 1.54517E-07  
8 15 1.56096E-07  
9 48 1.58477E-07  
10 21 1.59266E-07

...

49 2 1.60049E-02

---

Processing MAT/MF/MT,NC,NI 9437 33 18 0 1

First block of the Cov.Mtx of order 5

6.3282100E-5	5.1963800E-5	3.5576600E-5	3.6916800E-5	4.0676200E-5
5.1963800E-5	2.2150600E-4	1.0062100E-4	1.0146100E-4	1.1228600E-4
3.5576600E-5	1.0062100E-4	1.7688500E-4	1.2121300E-4	1.2753100E-4
3.6916800E-5	1.0146100E-4	1.2121300E-4	2.0478000E-4	1.3595900E-4
4.0676200E-5	1.1228600E-4	1.2753100E-4	1.3595900E-4	2.1752500E-4

Lowest eigenvalues in ascending order 160

1 6 5.79445E-07  
2 26 3.61817E-06  
3 74 1.08390E-05  
4 85 1.10972E-05  
5 23 1.13503E-05  
6 15 1.31152E-05  
7 79 1.43039E-05  
8 80 1.47036E-05  
9 10 1.57833E-05  
10 87 1.61033E-05

...

160 13 1.52857E-02

---

Processing MAT/MF/MT,NC,NI 9543 33 18 0 5

First block of the Cov.Mtx of order 5

0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0	0.0000000E+0
--------------	--------------	--------------	--------------	--------------

```

                                IRDFF-v1-05_coveig.lst
0.0000000E+0  2.1334900E-3  2.2583400E-3  2.0823300E-3  2.7585300E-3
0.0000000E+0  2.2583400E-3  2.4476100E-3  2.3808600E-3  3.2711700E-3
0.0000000E+0  2.0823300E-3  2.3808600E-3  2.6581200E-3  4.0386500E-3
0.0000000E+0  2.7585300E-3  3.2711700E-3  4.0386500E-3  7.0517600E-3

```

Lowest eigenvalues in ascending order 8

```

1  1  0.00000E+00
2  2  2.40272E-06
3  4  1.66505E-05
4  7  6.58279E-05
5  8  2.43249E-04
6  3  4.46506E-04
7  6  2.04698E-03
8  5  1.66547E-02

```

```

...
8  5  1.66547E-02

```

```

Dont know how to process covariance LB= 1  MT 18
Dont know how to process covariance LB= 1  MT 18
Dont know how to process covariance LB= 1  MT 18
Dont know how to process covariance LB= 8  MT 18

```