

hw4_interim

some intermediate results for hw4

```
[phioff phi_sf;lamoff lam_sf;hoff h_sf;loff l_sf;soff s_sf]
ans =
    40.023    0.076711
   -105.27    0.16269
     2200     800
    14656    14656
    17590    17590
```

78 x 1 parameter vector subdivided into a,b,c,d with "1" added to the b & d columns

```
[a b c d]
ans =
-0.022281         1    0.022688         1
-0.14805         0.247    1.3423         0.31006
-1.0624         0.83641   -0.0020474   -0.084123
 0.02035        -0.021204  0.027091        -0.19957
-0.37362        0.073922   -0.10795         0.071239
0.0077863       -0.002097    -0.25513        -0.0030587
 0.038255       -0.0067084  -0.0028226       -0.004609
-0.036639       0.0093091    0.40168         0.041971
-0.87707        0.082512    0.002062        0.096571
-0.00041314     0.00011196   -0.0062434     0.00091192
 0.0041958      -7.1463e-05   -0.0046122     -0.00014192
-0.001621      -6.7601e-05    0.052038     0.00039341
-0.085294       0.0002174     0.1286     0.00083121
-5.1139e-05     1.5647e-06    0.00081366     7.0851e-06
-0.020061       0.00017814    0.097133     0.00062581
-0.088109       -0.00025697   -8.5838e-05   -0.00018502
-0.0002279      3.6558e-06   -0.00013248     6.7283e-06
0.00046274      -5.944e-06    0.00035928    -6.6497e-05
 0.0081506      -3.682e-05    0.0030876     -0.0001321
 2.0066e-06     -1.9416e-08    1.9704e-05    -9.4227e-07
```

first 6 rows of B-matrix with order of condition equations set by for loops:

```
for i=1:7 % P-loop
  for j=1:7 % L-loop
    for k=1:7 % H-loop
      % generate B,f for 2 equations
    end
  end
end
```

B(1:6,:)

```
ans =
Columns 1 through 8
    -1         1         1         1         -1         -1         -1         -1
     0         0         0         0         0         0         0         0
    -1         1         1         0.5       -1         -0.5       -0.5       -1
     0         0         0         0         0         0         0         0
    -1         1         1         0         -1         0         0         -1
     0         0         0         0         0         0         0         0
Columns 9 through 16
    -1         -1         1         1         1         1         1         1
     0         0         0         0         0         0         0         0
    -1        -0.25        0.5         1         1         0.25         1         1
     0         0         0         0         0         0         0         0
    -1         0         0         1         1         0         1         1
     0         0         0         0         0         0         0         0
Columns 17 through 24
     1         1         1         1     -1.1452     -1.1452     -1.1452     1.1452
     0         0         0         0         0         0         0         0
    0.25        0.5         0.5         0.125   -1.1555   -1.1555   -0.57776     1.1555
     0         0         0         0         0         0         0         0
     0         0         0         0     -1.1659     -1.1659         0         1.1659
     0         0         0         0         0         0         0         0
Columns 25 through 32
    1.1452     1.1452     1.1452     1.1452     1.1452     -1.1452     -1.1452     -1.1452
     0         0         0         0         0         0         0         0
    0.57776     0.57776     1.1555     1.1555     0.28888     -0.57776     -1.1555     -1.1555
     0         0         0         0         0         0         0         0
     0         0         1.1659     1.1659         0         0         -1.1659     -1.1659
     0         0         0         0         0         0         0         0
Columns 33 through 40
    -1.1452     -1.1452     -1.1452     -1.1452     -1.1452     -1.1452     -1.1452     0
     0         0         0         0         0         0         0         -1
```

```

                                hw4_interim
-0.28888      -1.1555      -1.1555      -0.28888      -0.57776      -0.57776      -0.14444      0
0              0              0              0              0              0              0              -1
0              -1.1659      -1.1659      0              0              0              0              0
0              0              0              0              0              0              0              -1
Columns 41 through 48
0              0              0              0              0              0              0              0
1              1              1              -1             -1             -1             -1             -1
0              0              0              0              0              0              0              0
1              1              0.5          -1             -0.5          -0.5          -1             -1
0              0              0              0              0              0              0              0
1              1              0              -1             0              0              -1             -1
Columns 49 through 56
0              0              0              0              0              0              0              0
-1             1              1              1              1              1              1              1
0              0              0              0              0              0              0              0
-0.25         0.5          1              1              0.25         1              1              0.25
0              0              0              0              0              0              0              0
0              0              1              1              0              1              1              0
Columns 57 through 64
0              0              0              0              0              0              0              0
1              1              1              1.3531        1.3531        1.3531        -1.3531       -1.3531
0              0              0              0              0              0              0              0
0.5           0.5          0.125         1.3381        1.3381        0.66904       -1.3381       -0.66904
0              0              0              0              0              0              0              0
0              0              0              1.3231        1.3231        0              -1.3231       0
Columns 65 through 72
0              0              0              0              0              0              0              0
-1.3531       -1.3531       -1.3531       -1.3531       1.3531        1.3531        1.3531        1.3531
0              0              0              0              0              0              0              0
-0.66904     -1.3381       -1.3381       -0.33452     0.66904       1.3381        1.3381        0.33452
0              0              0              0              0              0              0              0
0              -1.3231      -1.3231       0              0              1.3231        1.3231        0
Columns 73 through 78
0              0              0              0              0              0              0              0
1.3531        1.3531        1.3531        1.3531        1.3531        1.3531        1.3531        1.3531
0              0              0              0              0              0              0              0
1.3381        1.3381        0.33452     0.66904       0.66904       0.16726       0.16726       0.16726
0              0              0              0              0              0              0              0
1.3231        1.3231        0              0              0              0              0              0
f(1:6)
ans =
-1.1452
1.3531
-1.1555
1.3381
-1.1659
1.3231
diary off

```