```
>> A = rand(5)

A =

    0.3782    0.4976    0.8808    0.3787    0.6171
    0.2458    0.4278    0.1600    0.9255    0.1479
    0.6762    0.5678    0.0892    0.0570    0.0290
    0.2613    0.6130    0.3131    0.9940    0.5725
    0.9615    0.8070    0.6074    0.6670    0.0300

>> [a,b] = RayleighIteration (A)

a =

    2.3788


b =

    0.4711
    0.3741
    0.2520
    0.5339
    0.5381

>> [c,d] = eig (A)

c =

    0.4711    0.6450   -0.6730   -0.5855   -0.0155
    0.3741   -0.5022    0.2064    0.7094    0.4111
    0.2520    0.3116    0.4333    0.1387   -0.5307
    0.5339   -0.3424   -0.2269   -0.1318   -0.3454
    0.5381    0.3426    0.5149   -0.3425    0.6556


d =

    2.3788         0         0         0         0
         0    0.5431         0         0         0
         0         0   -0.6860         0         0
         0         0         0    0.0129         0
         0         0         0         0   -0.3297

>>
```