```
1
                %f,g: 2 functions
   2
                %n: points of f
   3
                %m: points of g
   4
                %This function search neiborghood v
                function [path, E] = sldp(f, g)
   6
                c=inf;
                n=length(f);
   7
   8
                m=length(g);
                xx1=(0:n-1)/(n-1);
   9
10
                xx2=(0:m-1)/(m-1);
11
                E=zeros(n,n);
                E(1,:)=\dot{c};
12
13
                E(:,1)=c;
14
                E(1,1)=0;
                v = [1, 1; 2, 1; 3, 1; 4, 1; 5, 1; 6, 1; 1, 2; 1, 3; 1, 4; 1, 5; 1, 6; 2, 3; 3, 2; 3, 4; 4, 3; 2, 5; 3, 5; 4, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 2, 5, 4; 4, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 2; 5, 3; 5, 4; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 5, 6; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5; 6, 5;
15
16
                             1,7;2,7;3,7;4,7;5,7;6,7;7,1;7,2;7,3;7,4;7,5;7,6;1,8;3,8;5,8;7,8;8,7;8,5;8,3;8,1];
                for i=2:n;
17
18
                             for j=2:n;
                                           for r=1:size(v,1);
19
                                                        k=i-v(r,1);
20
                                                        1=j-v(r,2);
21
22
                                                        if (k>0 && 1>0)
23
                                                                     CandE(r) = E(k,l) + energySRSF2(f,g,k,l,i,j);
24
25
                                                                     CandE(r)=c;
                                                        end
26
27
                                           end
28
                                           [E(i,j),idx] =min(CandE);
                                           path(i,j,1) = i-v(idx,1);
29
30
                                           path(i,j,2) = j-v(idx,2);
                             end
31
32
                end
33
                %reconstruct gamma
34
                x(1) = n;
                y(1) = n;
35
36
                cnt = 1;
37
                while x(cnt)>1;
38
                             x(cnt+1) = path(x(cnt), y(cnt), 1);
39
                             y(cnt+1) = path(x(cnt), y(cnt), 2);
40
                             cnt = cnt+1;
41
                end
42
                path=[x',y'];
```