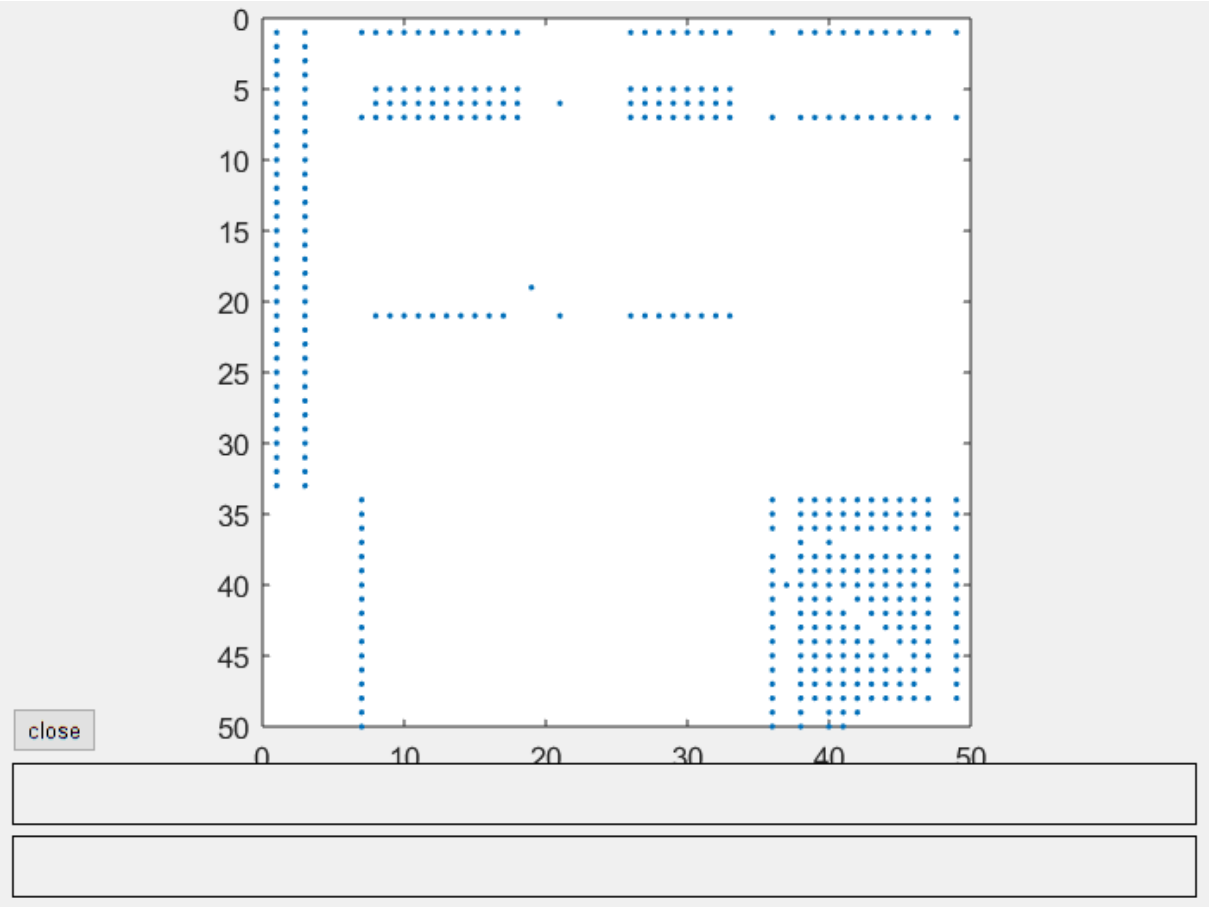
Esecuzione dell'algoritmo PageRank

```
[U,G]=surfer('http://www.unina.it',50);
```




```
[R, OUT, IN] = PageRank(G);
```

Grafico a barre page rank

```
figure (1)
bar(R);
title('Ranking delle pagine');
xlabel('Pagine')
ylabel('Percentuale di tempo di navigazione')
```

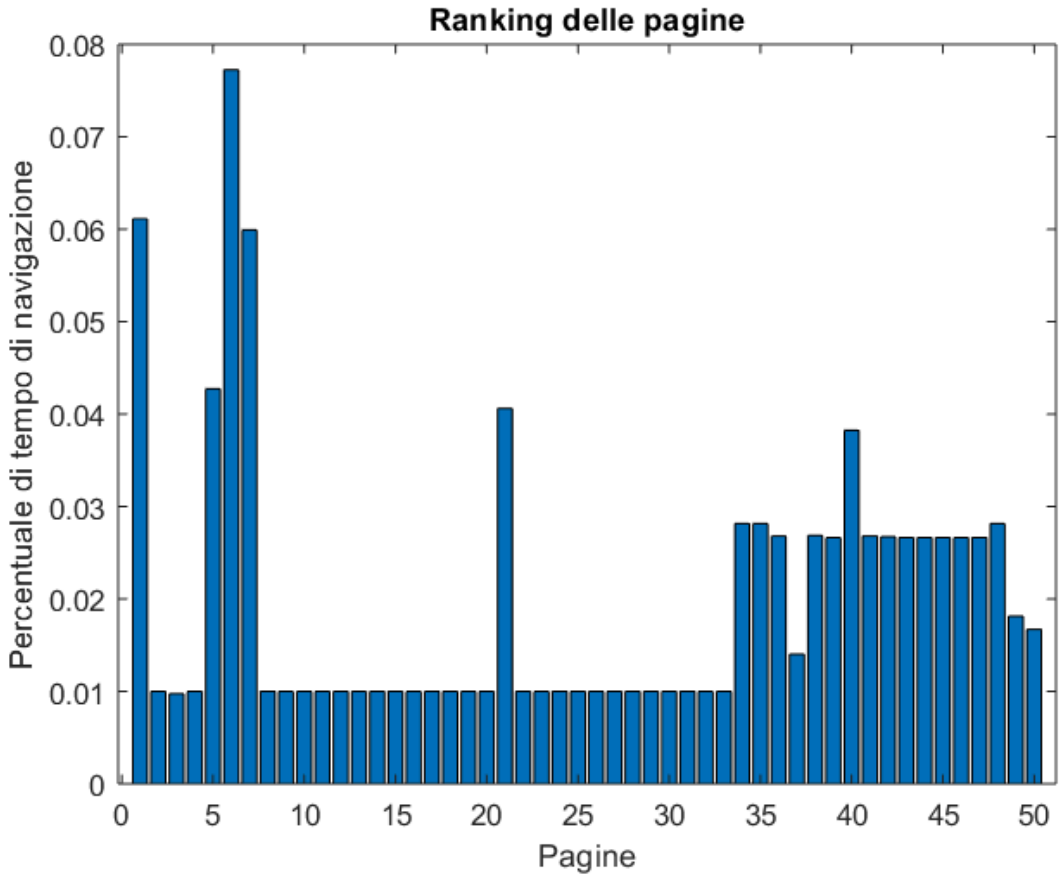
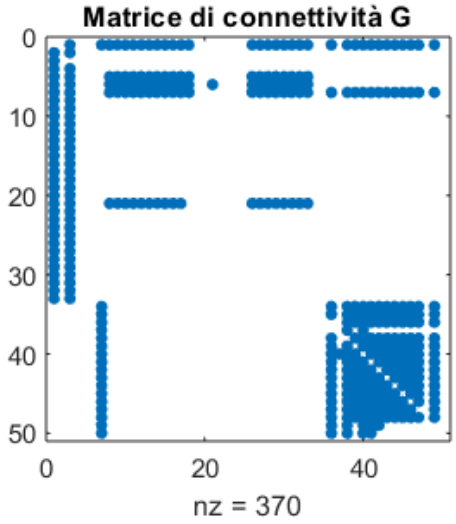
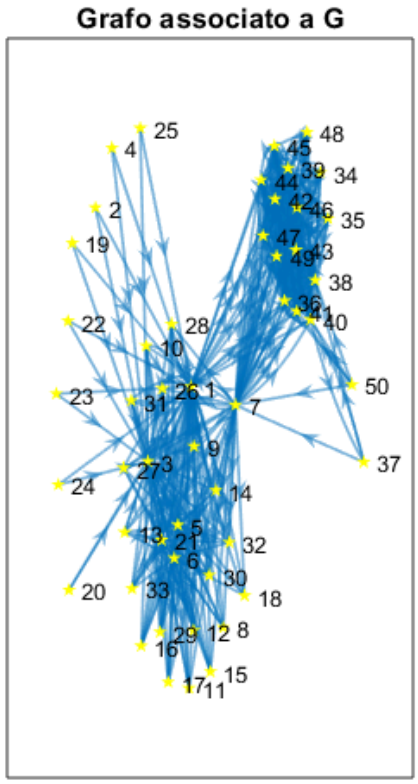


Grafico struttura G e grafo associato

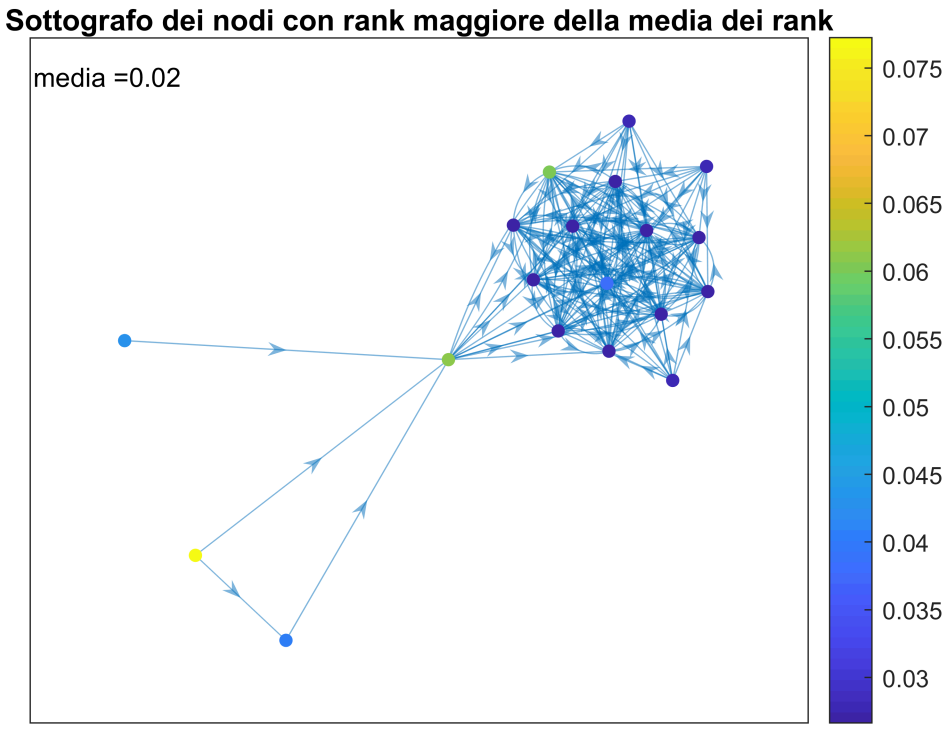
```
figure(2)
subplot(1,2,1)
G=G.*~speye(size(G,1));
spy(G);
title('Matrice di connettività G');
subplot(1,2,2)
ff=digraph(G,'OmitSelfLoops');
plot(ff,'NodeColor','y','LineWidth',1,'Marker','p','MarkerSize',2,'layout','force');
title('Grafo associato a G');
```





Sottografo nodi rank > media rank

```
G1=digraph(G,'OmitSelfLoops');
G1.Nodes.Name=U;
G1.Nodes.Rank=R;
H=subgraph(G1,find(G1.Nodes.Rank > mean(R)));
figure(3)
plot(H,'NodeLabel',{},'NodeCData',H.Nodes.Rank,'Layout','force');
text(-3.5,1.5,['media =',num2str(mean(R))]);
title("Sottografo dei nodi con rank maggiore della media dei rank");
colorbar
```



Stampa dei primi 15 risultati per ranking con outdegree e indegree

```
[R ,index]=sort(R,'descend');
TOP15 = table(R(1:15),OUT(index(1:15)),IN(index(1:15)),'Rownames',U(index(1:15)),'VariableNames
display(TOP15);
```

TOP15 = 15×3 table

	Ranking	OUT	IN
1 http://www	0.077250009...	0	22
2 http://www.unina.it	0.061133542...	32	33
3 http://www.sinapsi.unina.it	0.059927492...	18	33
4 http://www.unina.it/html/js/aui	0.042733303...	0	21
5 http://www.radiof2.unina.it	0.040607890...	1	20
6 http://www.sinapsi.unina.it/...	0.038257904...	18	13
7 http://www.sinapsi.unina.it/...	0.028143380...	0	13
8 http://www.sinapsi.unina.it/...	0.028143380...	0	13
9 http://www.sinapsi.unina.it/...	0.028143380...	0	13
10 http://www.sinapsi.unina.it...	0.026874315...	18	12

: