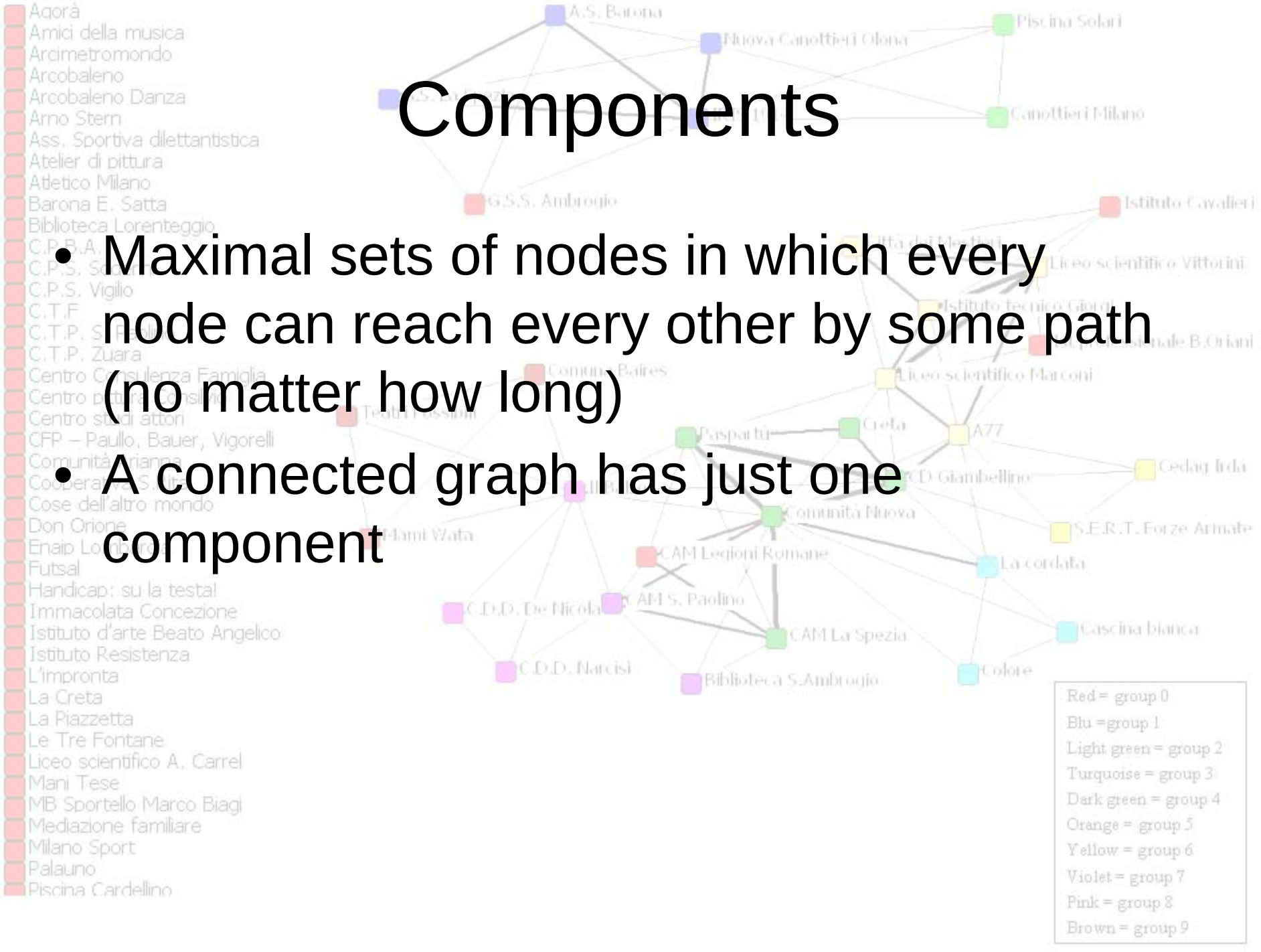
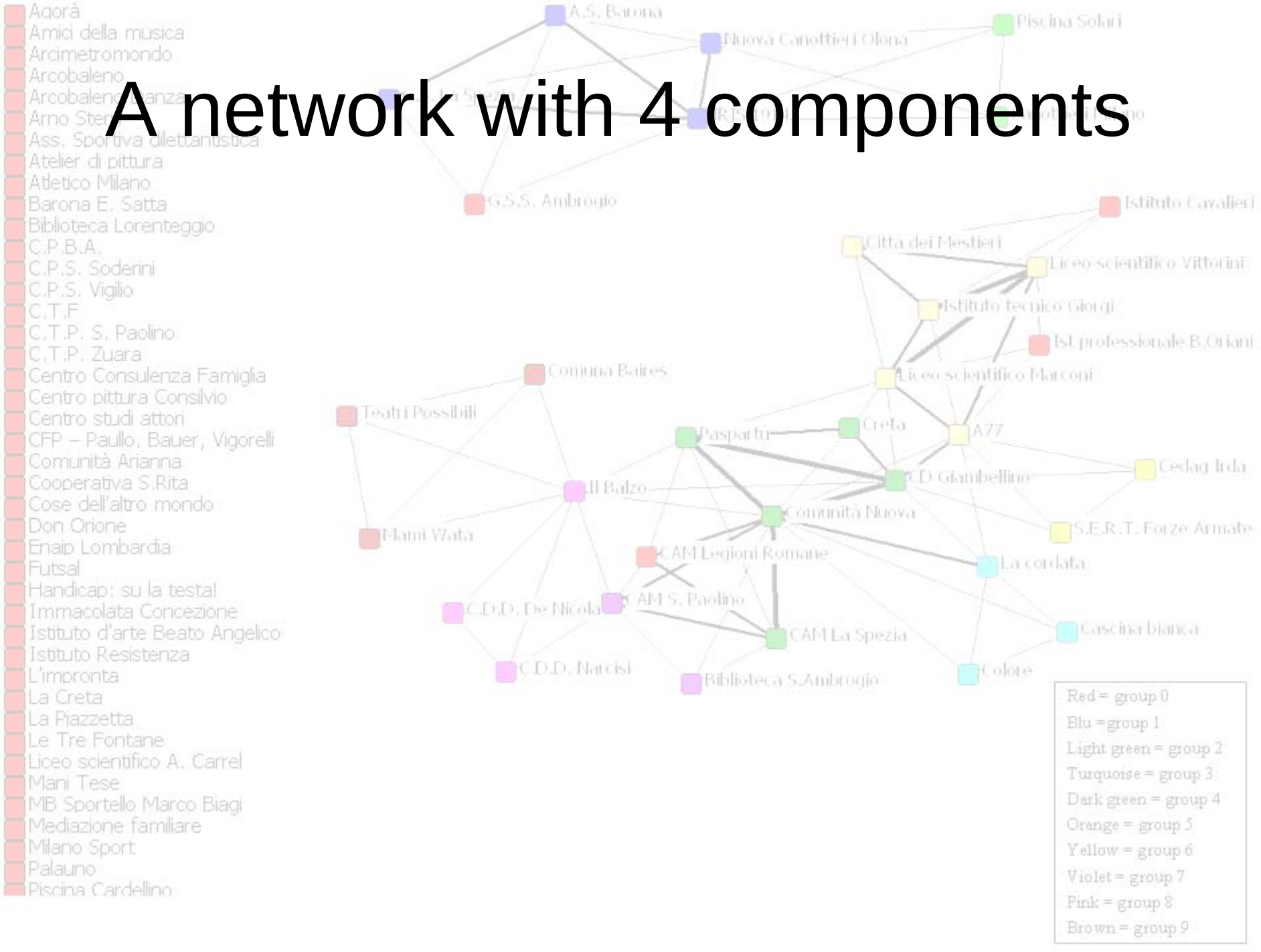
Components

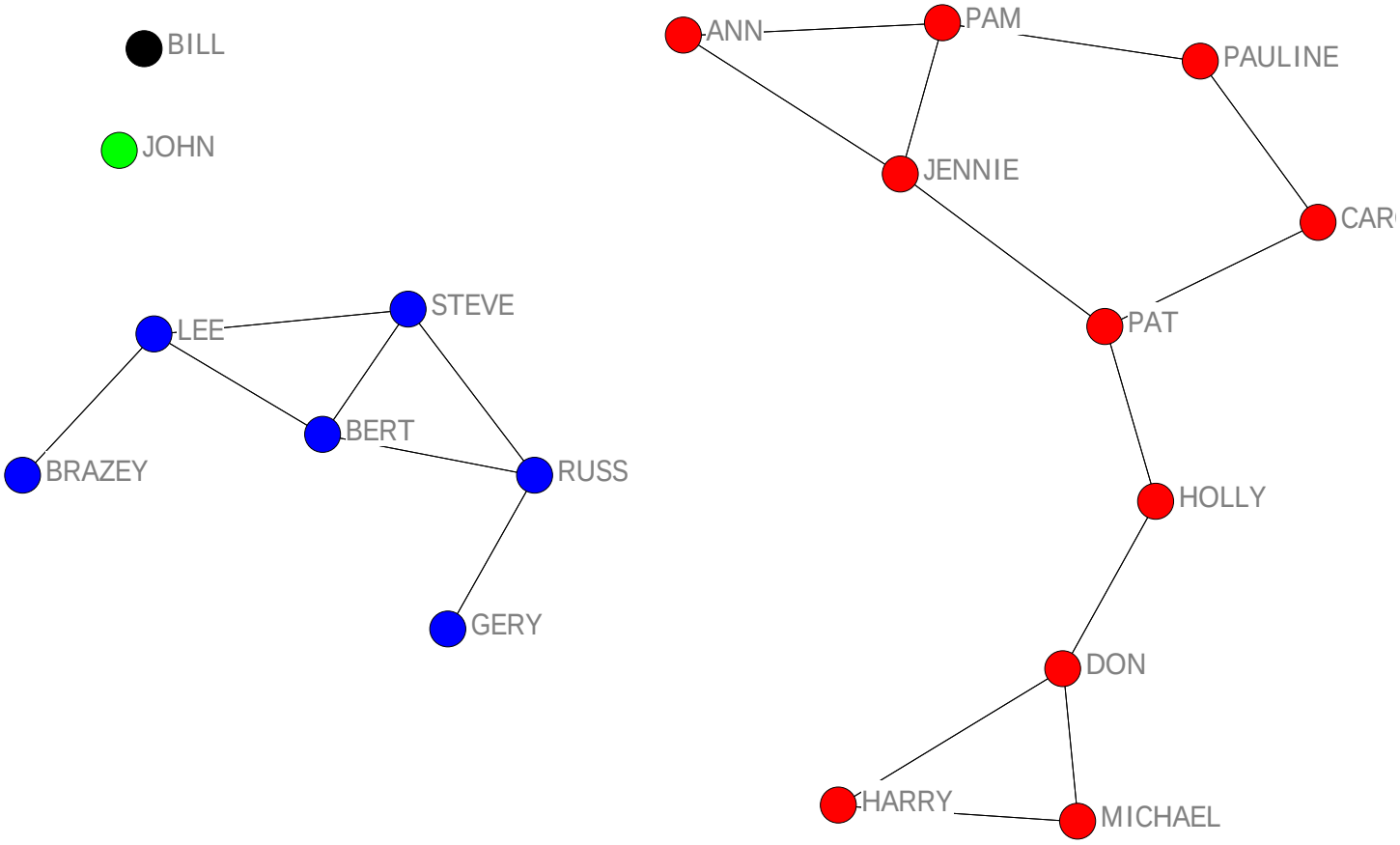
- Maximal sets of nodes in which every node can reach every other by some path (no matter how long)
- A connected graph has just one component



A network with 4 components



A network with 4 components

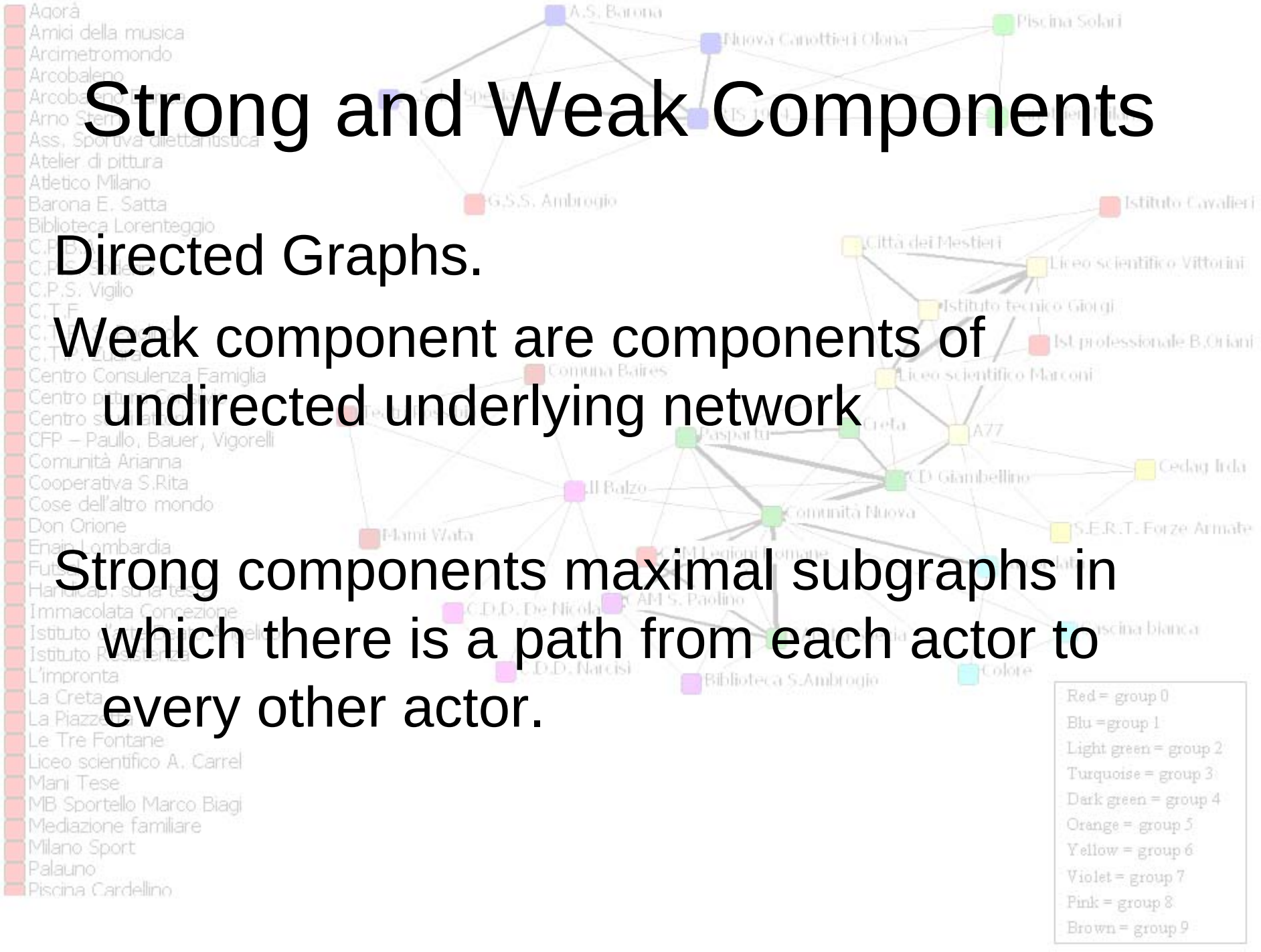


Strong and Weak Components

Directed Graphs.

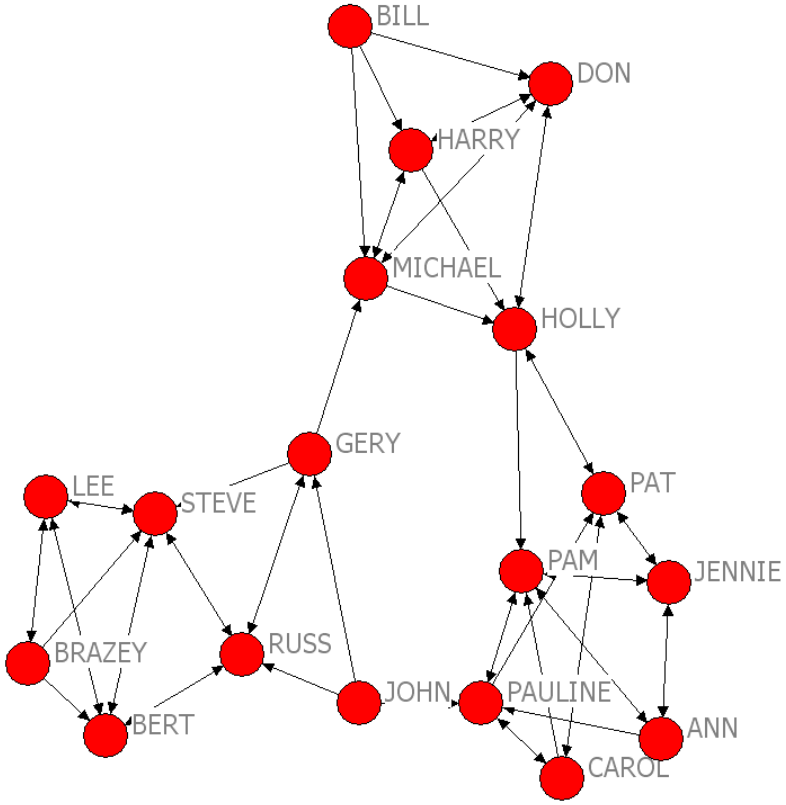
Weak component are components of undirected underlying network

Strong components maximal subgraphs in which there is a path from each actor to every other actor.

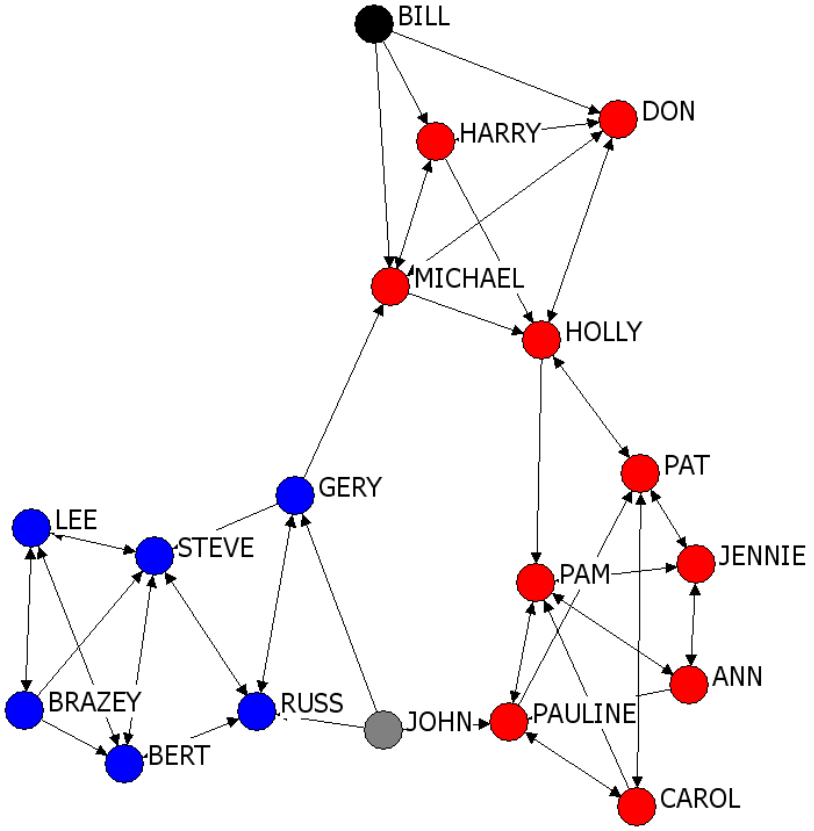


Components in Camp92

Weak



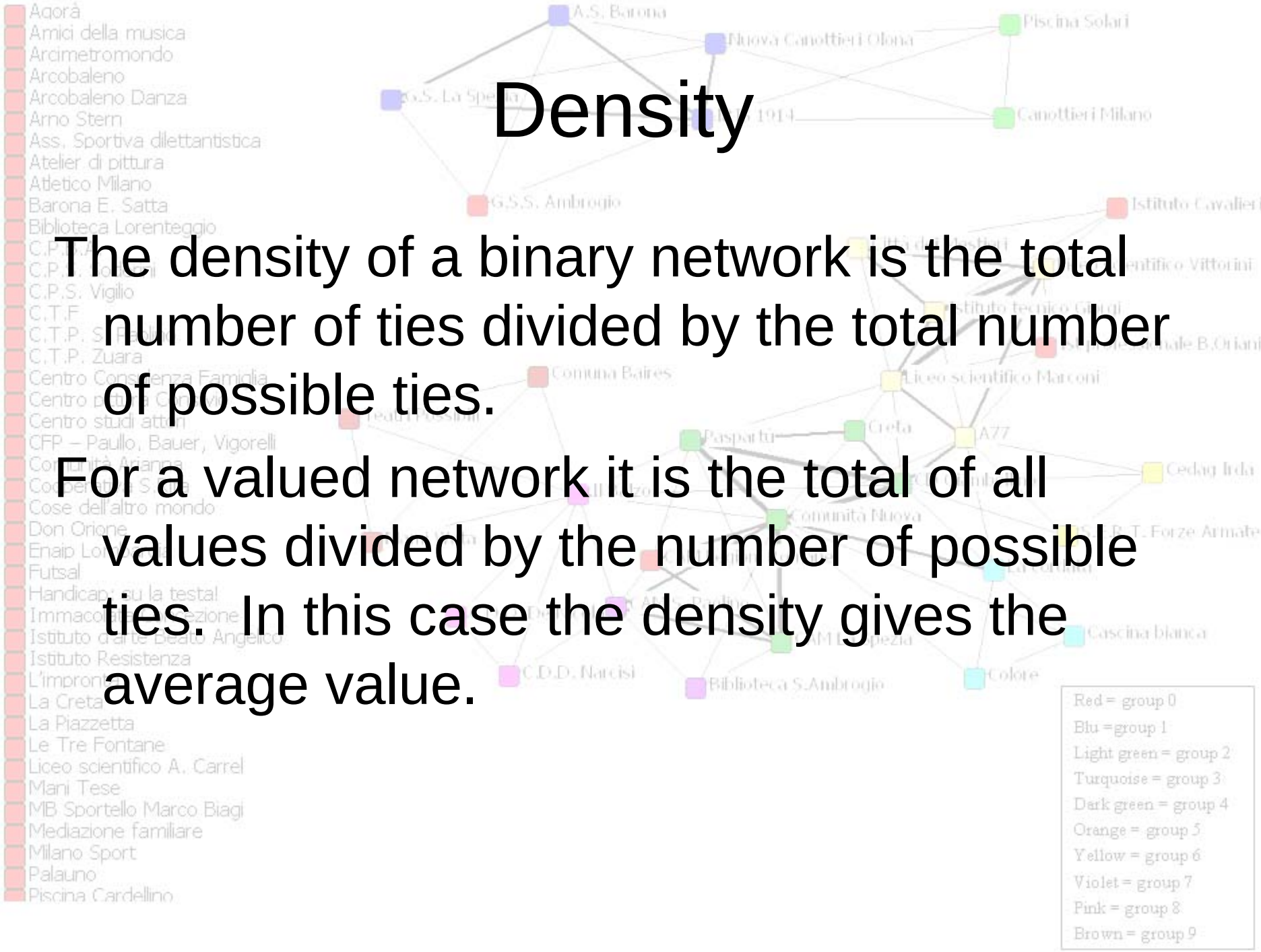
Strong

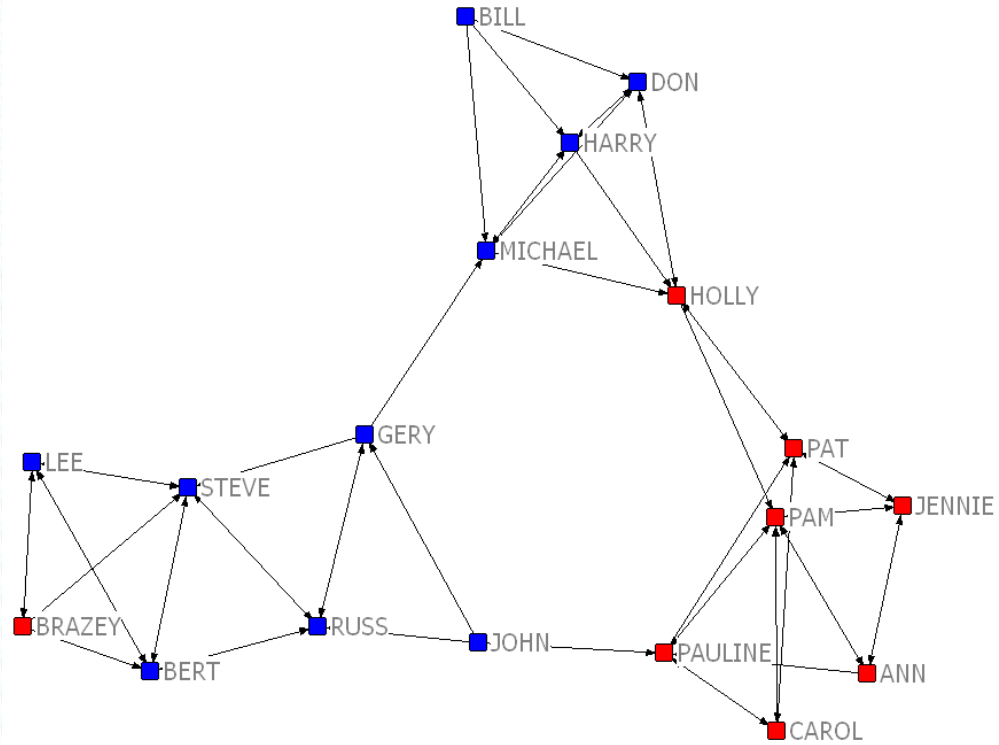


Density

The density of a binary network is the total number of ties divided by the total number of possible ties.

For a valued network it is the total of all values divided by the number of possible ties. In this case the density gives the average value.





DENSITY / AVERAGE MATRIX VALUE

Input dataset: C:\Programmi\Analytic Technologies\Ucinet 6\DataFiles\campnet

Output dataset: C:\Programmi\Analytic Technologies\Ucinet 6\DataFiles\campnet-density

	Density	No. of Ties
campnet	0.1765	54.0000

DENSITY WITHIN GROUPS

```
DENSITIES OR AVERAGE TIE STRENGTHS WITHIN/BETWEEN GROUPS
Input dataset:                C:\Programmi\Analytic Technologies\Ucinet 6\DataFiles\campnet
Row partition:                C:\Programmi\Analytic Technologies\Ucinet 6\DataFiles\campattr
Column partition:             C:\Programmi\Analytic Technologies\Ucinet 6\DataFiles\campattr
Method:                       Average (proportions)

ROW PARTITION
Block    Value     Freq       Members:
----- -------- --------   ---------------
    1        1        8    HOLLY BRAZEY CAROL PAM PAT JENNIE PAULINE ANN
    2        2       10    MICHAEL BILL LEE DON JOHN HARRY GERY STEVE BERT RUSS

COLUMN PARTITION
Block    Value     Freq       Members:
----- -------- --------   ---------------
    1        1        8    HOLLY BRAZEY CAROL PAM PAT JENNIE PAULINE ANN
    2        2       10    MICHAEL BILL LEE DON JOHN HARRY GERY STEVE BERT RUSS

Density / Average value within blocks
             1      2
      ------ ------
   1  0.3571 0.0500
   2  0.0625 0.2778

Standard Deviations within blocks
             1      2
      ------ ------
   1  0.4792 0.2179
   2  0.2421 0.4479

Density table(s) saved as dataset campnet-density
  Use MATRIX>TRANSFORM>DICHOTOMIZE procedure to get binary image matrix.
Standard deviations saved as dataset campnet-stddev
```