Density Based Merging Search of Functional Modules in Protein-Protein Interaction (PPI) Networks

M *

M M U
jwma@math.pku.edu.cn

Abstract. ( )
(M)
M

Keywords:

1 Introduction

( )

*

H E)
V H

2 The DBMS Algorithm

2.1 The Characteristics of a Complex

M

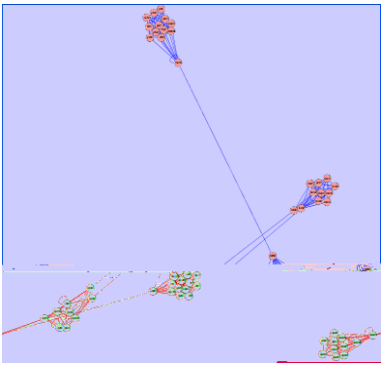


Fig. 1.

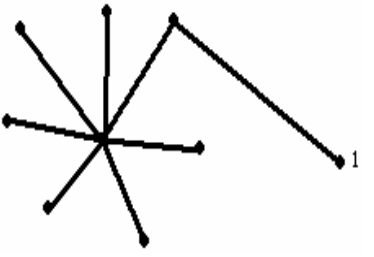


Fig. 2.

2.2 The Description of the DBMS Algorithm

$$p = \left(\sum_{v \in U_p} d_v + d_p \right) - d_p \qquad (\ )$$

d_v

M M

m n $S = n$ $d_p = m$

P S m ,

k n

k d_p $c = k \_ n$

m P S c $\frac{b}{n}$ P S

k b b

m m n

$b =$ m n f m d_p n

m d_p m n $b =$ n

3 Experiment Results

3.1 The PPI Datasets

3.2 Simulation Results

3.3 Experimental Results on the Real-World PPI Datasets

M , , , M ,

Table 1. m , M M E , m m , m , m , M E , m , M E

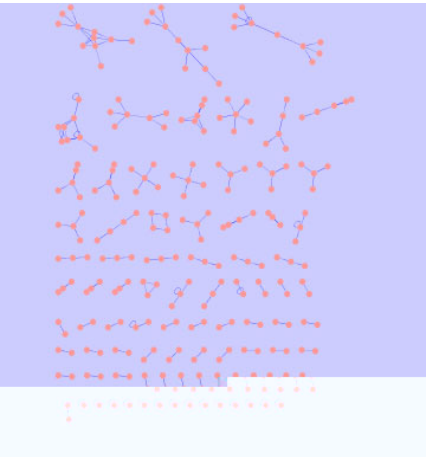


Fig. 3.

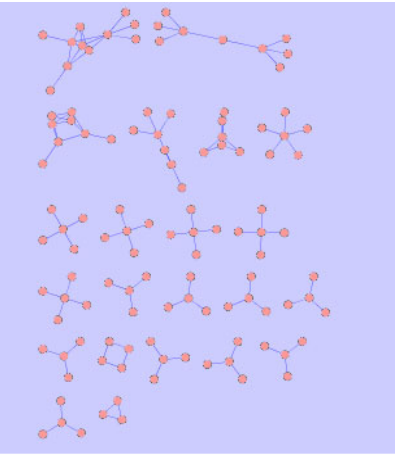
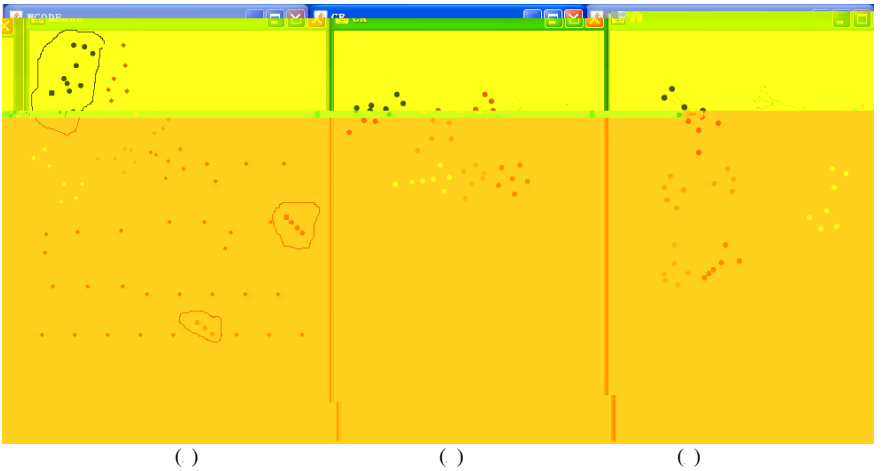


Fig. 4.



( ) ( ) ( )

Fig. 5.

5 Conclusions

Acknowledgements

References