Centrality and spectral radius in dynamic communication networks

Abstract. [illegible]

1 Introduction

[illegible]

2 Relaxed Communicability

2.2 l i **B** r

ʻ b l q q ( ), l
A_i b

$$(I - \alpha A_i)^{-1} \quad \sum_{k=0}^{1} \alpha^k A_i^k \qquad ( )$$

q q ( ) ʻ q q , -
$\alpha < \frac{1}{(A_i)}$ q l l $\alpha < \frac{1}{\max((A_i))}$, i $0, \ldots, M$ ( ).
q, l ʻ q q l A_i, α ρ q ρ b b l
, , ʻ ll b ll q b ʻ q
A αA , 1 l l ʻ ( )- (( )-2l (1 -2 ∅(b) (( )-2 T q

$l \in \mathbb{N}$ ρ ρ l , α ll l l
1 ρ ρ l ρ l ρ ρ ρ
, . . ρ l ρ . , l ρ
l , l ρ ρ ρ
ρρl , l l α ( ) l, l b ll-
ρ l ρl α ρ A_i l ρ 2- A_i l .
ρ ρ ll ρ ρ n, ρ ρ ρ ll
, ρρ ρ , l A_i. l ρ
l ρl ρ ll A_i . ll ρ , Q
ρ ρ ρ l ( ) ρ ρ ρ α ρ ρl A $\frac{A}{kAk}$.

2.4 $\dot{\imath}$] $\dot{\imath}$

ρ ρ ρ ρ l ρ
l -ρ ρ ρ ρ ρ l ρ
ρ ρ . ρ $A_{i_1}, \cdots, A_{i_2}$
ρ ρ l ρ ρ ρ ρ l ρ -
ρ l ρ . , k, ρ Q_k, ρ-
ρ ρ l 0 2 2. 07 ( ) / . 1 . 07 (( )2 ( )- 2 . l 0)-2 07 (2 (T

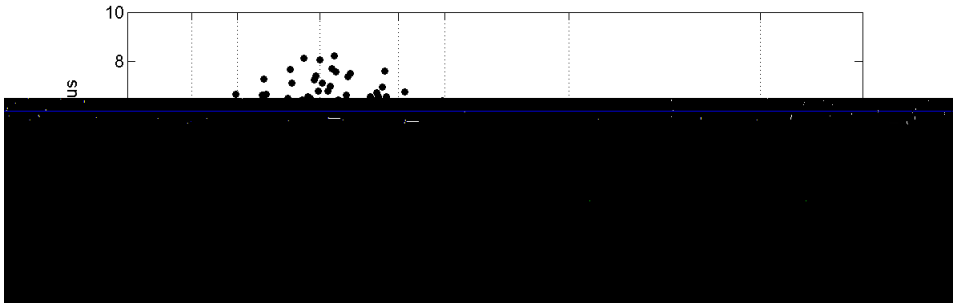

Fig. 2. MH : A_1 A_{365} .

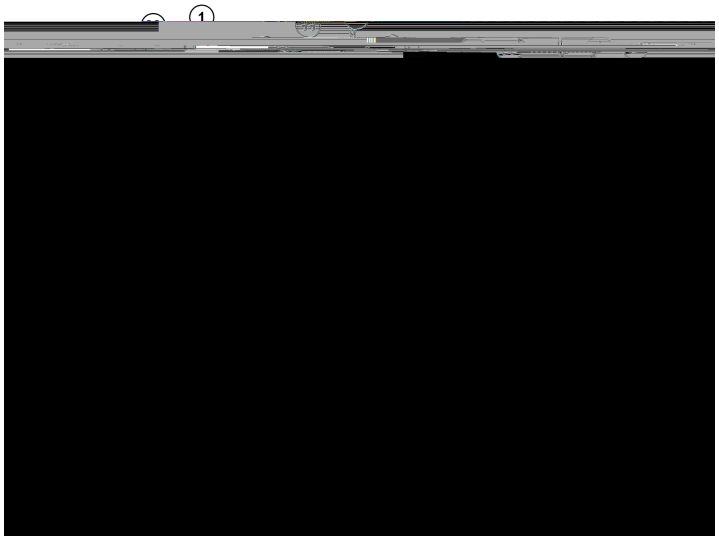

Fig. 3. MH : A ( ), 32.

Table 1. (1 , 1 106)

	( )	( )
10	71	21
45	35	25
59	85	28
71	71	21

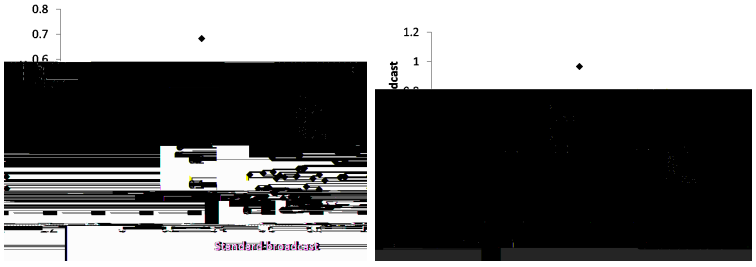

Fig. 4.

, ” ”, b 12 08 2. .

3.3

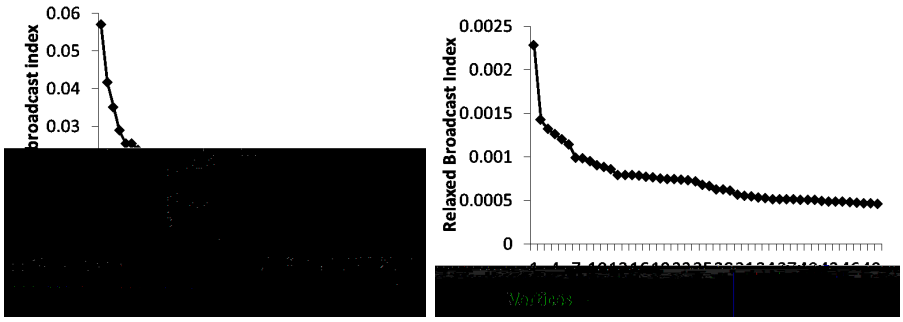

Fig. 5. 50 ( ) ( )

12 08 .

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