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TTL

¹ Actions
Time To Live



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[]

$$\alpha \equiv \{\alpha_1, \alpha_2, \dots, \alpha_r\} \quad E \equiv \{\alpha, \beta, c\}$$

$$c \equiv \{c_1, c_2, \dots, c_r\}$$

$$\beta \equiv \{\beta_1, \beta_2, \dots, \beta_r\} \quad ()$$

$$P \quad \beta_i \quad S \quad (\beta_i \in [0,1])$$

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$$\alpha \equiv \{\alpha_1, \alpha_2, \dots, \alpha_r\} \quad \{\alpha, \beta, p, T\}$$

$$p \equiv \{p_1, p_2, \dots, p_r\}$$

$$\beta \equiv \{\beta_1, \beta_2, \dots, \beta_m\}$$

$$p(n+1) = T[\alpha(n), \beta(n), p(n)]$$

$$P \quad p_i(n) \quad S$$

$$(\beta_i(n)=1 \quad \beta_i(n)=0)$$

¹ Variable Structure

$$p_i(n+1) = p_i(n) + [1 - \beta_i(n)]a[1 - p_i(n)] - \beta_i(n)b.p_i(n) \quad (1)$$

$$p_j(n+1) = p_j(n) - [1 - \beta_j(n)]a.p_j(n) + \beta_j(n) \frac{b}{r-1} - b.p_j(n) \quad \forall j \quad j \neq i$$

$$\begin{aligned} & \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \\ & \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \\ & \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \end{aligned}$$

$$:(L_{R-\epsilon P}) \quad SL_{R-\epsilon P} \quad () \quad \text{b} \quad \text{a} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b}$$

$$:(L_{R-P}) \quad SL_{R-P} \quad () \quad \text{b} \quad \text{a} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b}$$

$$:(L_{R-I}) \quad SL_{R-I} \quad () \quad \text{b} \quad \text{a} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b} \quad \text{a} \quad \text{b}$$

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$$(V(n)) \quad n \quad []$$

$$V(n) \quad []$$

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$$\langle \quad \rangle$$

$$\quad)$$

$$\quad (...)$$

$$m \quad k \in \{1 \dots m\} \quad n_{ik} \quad (n_i) \quad i \quad k$$

$$A_{ij} \quad (n_i) \quad i \quad (R_j) \quad j$$

$$n_{ik} \quad \alpha_{ijk} \quad A_{ij} \quad \alpha_{ij} = \{ \alpha_{ijk} \mid k \in \{1 \dots m\} \}$$

$$. (\alpha_{ijk} \cong n_{ik})$$

$$A_{ij} \quad i \quad j$$

$$\quad n_{ik} \quad \alpha_{ijk} \quad \alpha_{ijk}$$

$$(\quad)$$

$$j$$

(P S)

)

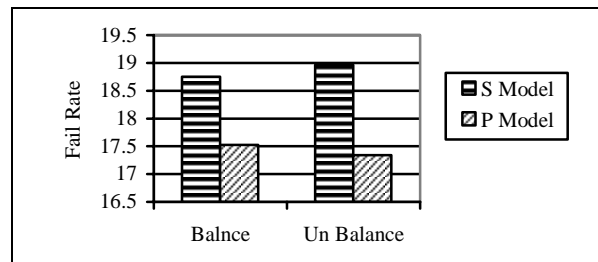
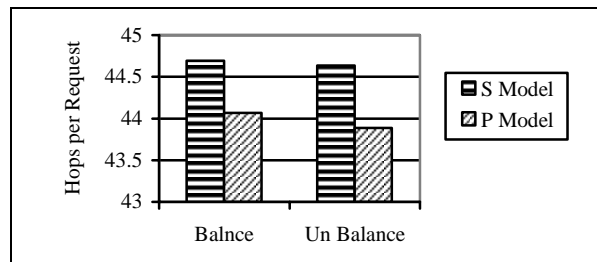
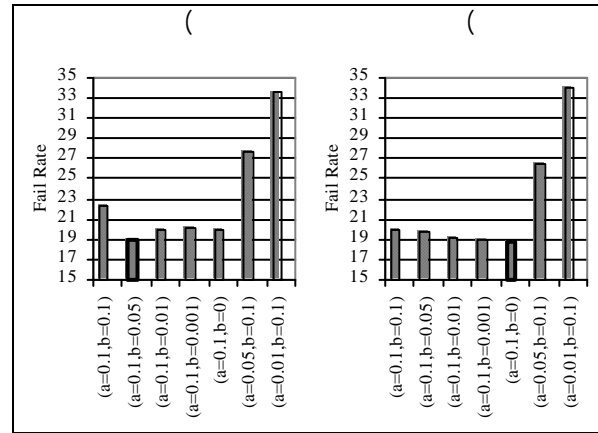
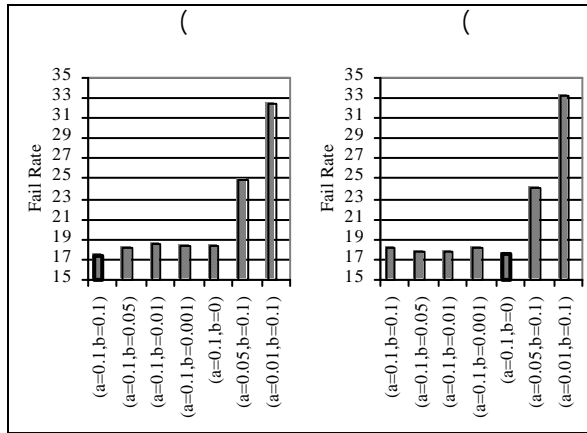
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¹ S Model Linear Reward-Penalty Scheme² S Model Linear Reward Epsilon Penalty Scheme³ S Model Linear Reward-Inaction Scheme

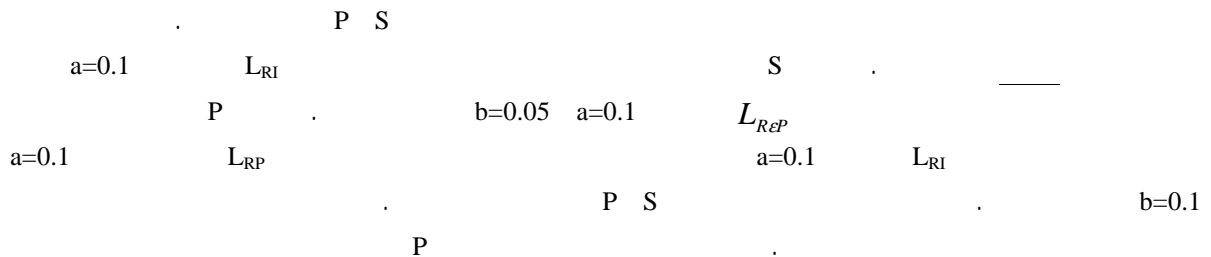
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$$\begin{aligned}
 & \left(\begin{matrix} S & P & S \\ j & & \end{matrix} \right) \\
 & \left(\begin{matrix} \tau_1, \tau_2, \dots, \tau_{e-1}, \tau_e \end{matrix} \right) \quad (i \in \{2, \dots, e-1\}) \\
 & \left(\begin{matrix} n_{\tau_i} & n_{\tau_e} & n_{\tau_1} \\ n_{\tau_i} & \tau_i & \end{matrix} \right) \\
 & \left(\begin{matrix} s_r & b_{ij} & t_{ij} \end{matrix} \right) \\
 & (i < j) \quad \tau_j \quad \tau_i \\
 & (i < j) \quad \tau_j \quad \tau_i \\
 & t_{ij} = \frac{s_r}{b_{ij}} \\
 & d_i^{abs} = \sum_{k=i}^{e-1} t_{k,k+1} = \sum_{k=i}^{e-1} \frac{s_r}{b_{k,k+1}}, \quad \tau_k \in \langle \tau_1, \dots, \tau_e \rangle \\
 & d_i^{abs} = \sum_{k=i}^{e-1} \frac{1}{b_{k,k+1}}, \quad \tau_k \in \langle \tau_1, \dots, \tau_e \rangle \\
 & d_i^{rel} = \frac{d_i^{abs}}{d_{e-1}^{abs}} \\
 & d_{e-1}^{rel} = 1 \\
 & \beta_{ij} = 0.5 - \frac{1}{d_i^{rel} + 1} \\
 & \beta_{ij} = 1 \\
 & \frac{1}{d_i^{rel} + 1}
 \end{aligned}$$

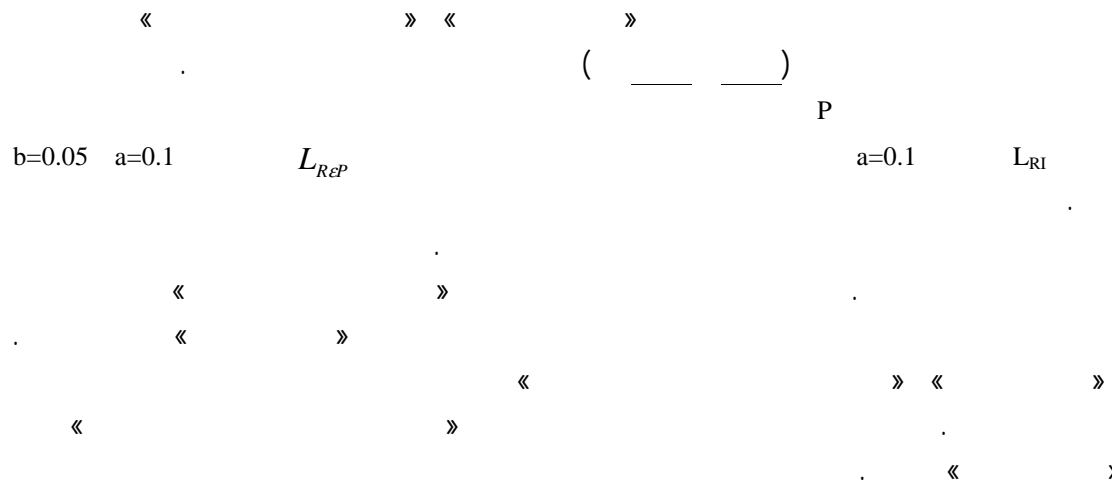
¹ Link

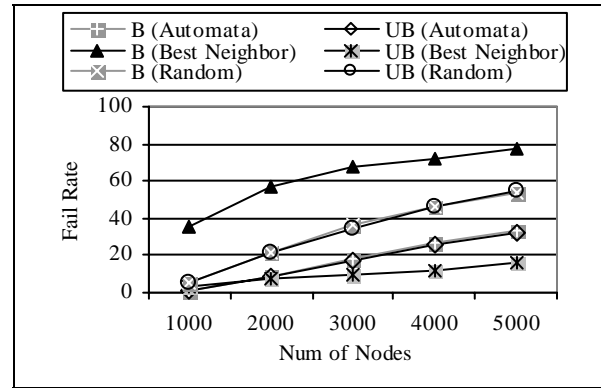
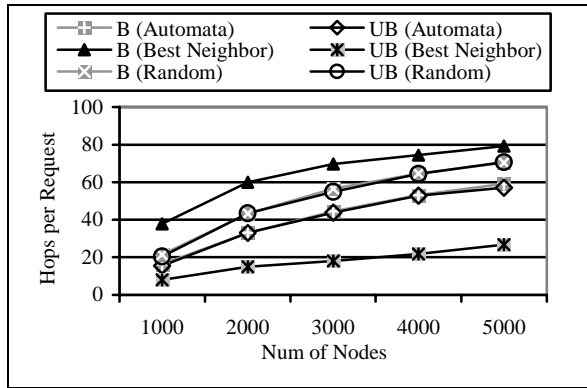


۲-۳-۵ - بررسی تاثیر مدل‌های مختلف محیط



۳-۳-۵ - مقایسه مکانیزم پیشنهاد شده با مکانیزم‌های قبلی





.UB (UnBalance) : B (Balance) :

.UB (UnBalance) : B (Balance) :

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