$\omega(P)$
$[0, P^*]$
$\omega(P)$
P
v
$[0, P_{\lceil v+1/2 \rceil}]$
??
$I^* =$
$\{P_L, P_H\}$
$I =$
$\{[P_L, P_H]\}$
I
I^*
I
I^*
$P_0 <$
$P_1 \leq$
$\cdots <$
P_q
$P_0 =$
$P_L, P_q =$
P_H
$q =$
$|I^*| -$
1
I
$[P_{k-1}, P_k]$
$1 \leq$
$k \leq$
q
$R_{k-1}(P)$
$L_k(P)$
$R_{k-1}(P)$
$(P_{k-1}, \omega(P_{k-1}))$

$K_r^{P_{k-1}}$
$\omega(P)$
P_{k-1}
$L_k(P)$
$(P_k, \omega(P_k))$

$K_l^{P_k}$
$\omega(P)$
P_k
$R_{k-1}(P)$
$(P_k, \omega(P_k))$
$L_k(P)$
$(P_{k-1}, \omega(P_{k-1}))$
I
$[P_{k-1}, P_k]$
$R_{k-1}(P)$
$L_k(P)$
$P =$
P'

$P' \in$
(P_{k-1}, P_k)
I^*
P'
I
$[P_{k-1}, P_k]$

$[P_l, P']$
$[P', P_r]$
$(P, \omega(P))$
$P \in$
I^*
$\omega(P)$
P
$\omega(P)$
$\omega_1(P)$
$\alpha(s) \leq$
$c_0(s, 1) +$
P
$\omega(P)$
P
$S' \subseteq$
$S \setminus$
$\{V\}$

$\{1\}, \{2\}, \ldots, \{v\}$
$\bar{\alpha}(\cdot, P)$
$\tau(P)$
$\max_{\alpha \in R^v} \{\alpha(V, P) :$
$\alpha(s, P) \leq$