

Table 1: Statistical comparison between each pair of CRAG configurations in terms of *#fail*. (Legend. \equiv : no significant difference between the two approaches. \checkmark : the approach on the row is *better* than the one on column, \times means that it is worse; the number of symbols identifies the strength of the difference: *negligible* (\checkmark , \times), *small* ($\checkmark\checkmark$, $\times\times$), *medium* ($\checkmark\checkmark\checkmark$, $\times\times\times$), *large* ($\checkmark\checkmark\checkmark\checkmark$, $\times\times\times\times$))

(a) Random search (*RndSearch*)

[illegible]

(b) $(1+1)$ -EA

	S4N4M4RS _{min} ,0.2RS _{max} 1.5	S4N4M4RS _{min} ,0.2RS _{max} 2	S4N4M4RS _{min} ,0.6RS _{max} 1.5	S4N4M4RS _{min} ,0.6RS _{max} 2	S4N4M5RS _{min} ,0.2RS _{max} 1.5	S4N4M5RS _{min} ,0.2RS _{max} 2	S4N4M5RS _{min} ,0.6RS _{max} 1.5	S4N4M5RS _{min} ,0.6RS _{max} 2	S5N5M4RS _{min} ,0.2RS _{max} 1.5	S5N5M4RS _{min} ,0.2RS _{max} 2	S5N5M4RS _{min} ,0.6RS _{max} 1.5	S5N5M4RS _{min} ,0.6RS _{max} 2	S5N5M5RS _{min} ,0.2RS _{max} 1.5	S5N5M5RS _{min} ,0.2RS _{max} 2	S5N5M5RS _{min} ,0.6RS _{max} 1.5	S5N5M5RS _{min} ,0.6RS _{max} 2
S4N4M4RS _{min} ,0.2RS _{max} 1.5	-	=	XXX	=	=	=	XXXX	=	=	=	XXXX	XXXX	XXXX	=	XXXX	XXXX
S4N4M4RS _{min} ,0.2RS _{max} 2	✓✓✓	-	XXXX	XXX	XXX	=	XXXX	XXX	XXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
S4N4M4RS _{min} ,0.6RS _{max} 1.5	=	✓✓✓	-	-	=	✓✓✓	=	=	=	=	XXXX	XXXX	=	=	XXX	XXX
S4N4M4RS _{min} ,0.6RS _{max} 2	=	✓✓✓	=	=	=	✓✓✓	=	=	=	=	XXXX	XXXX	XXX	=	XXXX	XXXX
S4N4M5RS _{min} ,0.2RS _{max} 1.5	=	✓✓✓	=	=	-	=	XXX	=	XXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
S4N4M5RS _{min} ,0.2RS _{max} 2	=	=	XXXX	XXX	=	-	XXXX	=	XXX	XXXX	XXXX	XXXX	XXX	XXX	XXXX	XXXX
S4N4M5RS _{min} ,0.6RS _{max} 1.5	✓✓✓✓	✓✓✓✓	=	=	✓✓✓	✓✓✓✓	-	✓✓✓	=	=	XXX	=	=	=	=	=
S4N4M5RS _{min} ,0.6RS _{max} 2	=	✓✓✓	=	=	=	=	XXX	-	=	=	XXXX	XXXX	XXXX	=	XXXX	XXXX
S5N5M4RS _{min} ,0.2RS _{max} 1.5	=	✓✓✓	=	=	=	✓✓✓	=	=	=	=	XXXX	XXX	XXX	=	XXXX	XXX
S5N5M4RS _{min} ,0.2RS _{max} 2	=	✓✓✓✓	=	=	=	✓✓✓✓	=	=	=	-	XXXX	=	=	=	XXX	XXX
S5N5M4RS _{min} ,0.6RS _{max} 1.5	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	-	=	✓✓✓	✓✓✓✓	=	=
S5N5M4RS _{min} ,0.6RS _{max} 2	✓✓✓✓	✓✓✓✓	=	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	=	=	=	✓✓✓	=	=	=
S5N5M5RS _{min} ,0.2RS _{max} 1.5	✓✓✓✓	✓✓✓✓	=	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓	=	XXX	=	-	✓✓✓	=	=
S5N5M5RS _{min} ,0.2RS _{max} 2	=	✓✓✓✓	=	=	=	✓✓✓	=	=	=	=	XXXX	XXX	XXX	-	XXXX	XXXX
S5N5M5RS _{min} ,0.6RS _{max} 1.5	✓✓✓✓	✓✓✓✓	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓	=	=	=	✓✓✓✓	=	=
S5N5M5RS _{min} ,0.6RS _{max} 2	✓✓✓✓	✓✓✓✓	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓	✓✓✓	=	=	=	✓✓✓✓	-	-

Table 2: Statistical comparison between each pair of **CRAG** configurations in terms of $|Tests|$. (Legend. \equiv : no significant difference between the two approaches. \checkmark : the approach on the row is *better* than the one on column, \times means that it is worse; the number of symbols identifies the strength of the difference: *negligible* (\checkmark , \times), *small* ($\checkmark\checkmark$, $\times\times$), *medium* ($\checkmark\checkmark\checkmark$, $\times\times\times$), *large* ($\checkmark\checkmark\checkmark\checkmark$, $\times\times\times\times$))

(a) Random search (*RndSearch*)

	$S4N4M4RS_{min}0.2RS_{max}1.5$	$S4N4M4RS_{min}0.2RS_{max}2$	$S4N4M4RS_{min}0.6RS_{max}1.5$	$S4N4M4RS_{min}0.6RS_{max}2$	$S4N4M5RS_{min}0.2RS_{max}1.5$	$S4N4M5RS_{min}0.2RS_{max}2$	$S4N4M5RS_{min}0.6RS_{max}1.5$	$S4N4M5RS_{min}0.6RS_{max}2$	$S5N5M4RS_{min}0.2RS_{max}1.5$	$S5N5M4RS_{min}0.2RS_{max}2$	$S5N5M4RS_{min}0.6RS_{max}1.5$	$S5N5M4RS_{min}0.6RS_{max}2$	$S5N5M5RS_{min}0.2RS_{max}1.5$	$S5N5M5RS_{min}0.2RS_{max}2$	$S5N5M5RS_{min}0.6RS_{max}1.5$	$S5N5M5RS_{min}0.6RS_{max}2$
$S4N4M4RS_{min}0.2RS_{max}1.5$	XXXX	✓✓✓✓	✓✓✓✓	✓✓✓✓	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓	XXXX	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S4N4M4RS_{min}0.2RS_{max}2$	XXXX	-	✓✓✓✓	✓✓✓✓	≡	≡	✓✓✓✓	✓✓✓✓	XXXX	≡	✓✓✓✓	✓✓✓✓	XXXX	✓✓✓✓	≡	✓✓✓✓
$S4N4M4RS_{min}0.6RS_{max}1.5$	XXXX	XXX	-	✓✓✓✓	XXXX	XXX	≡	✓✓✓✓	XXXX	≡	≡	✓✓✓✓	XXXX	≡	≡	✓✓✓✓
$S4N4M4RS_{min}0.6RS_{max}2$	XXXX	XXXX	XXXX	-	XXXX	XXXX	≡	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	XXXX	≡
$S4N4M5RS_{min}0.2RS_{max}1.5$	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓	-	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S4N4M5RS_{min}0.2RS_{max}2$	XXXX	≡	✓✓✓✓	✓✓✓✓	XXXX	-	✓✓✓✓	XXXX	✓✓✓✓	✓✓✓✓	✓✓✓✓	XXXX	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S4N4M5RS_{min}0.6RS_{max}1.5$	XXXX	XXX	≡	✓✓✓✓	XXXX	XXXX	-	✓✓✓✓	XXXX	≡	✓✓✓✓	XXXX	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S4N4M5RS_{min}0.6RS_{max}2$	XXXX	XXXX	XXXX	≡	XXXX	XXXX	-	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	XXXX	≡
$S5N5M4RS_{min}0.2RS_{max}1.5$	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓	≡	✓✓✓✓	-	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S5N5M4RS_{min}0.2RS_{max}2$	XXXX	≡	≡	XXXX	XXXX	XXXX	≡	XXXX	-	≡	✓✓✓✓	XXXX	≡	≡	✓✓✓✓	✓✓✓✓
$S5N5M4RS_{min}0.6RS_{max}1.5$	XXXX	XXX	≡	✓✓✓✓	XXXX	XXX	≡	✓✓✓✓	XXXX	≡	-	✓✓✓✓	XXXX	≡	✓✓✓✓	✓✓✓✓
$S5N5M4RS_{min}0.6RS_{max}2$	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	-	XXXX	XXXX	XXXX	≡
$S5N5M5RS_{min}0.2RS_{max}1.5$	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓	≡	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	-	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
$S5N5M5RS_{min}0.2RS_{max}2$	XXXX	XXX	≡	✓✓✓✓	XXXX	XXX	≡	XXXX	≡	✓✓✓✓	XXXX	-	XXXX	-	✓✓✓✓	✓✓✓✓
$S5N5M5RS_{min}0.6RS_{max}1.5$	XXXX	≡	≡	✓✓✓✓	XXXX	XXXX	≡	✓✓✓✓	XXXX	≡	≡	✓✓✓✓	XXXX	≡	-	✓✓✓✓
$S5N5M5RS_{min}0.6RS_{max}2$	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	≡	XXXX	XXXX	XXXX	-

(b) $(1+1)$ -EA

[illegible]

Table 3: Statistical comparison between each pair of CRAG configurations in terms of *div*. (Legend. \equiv : no significant difference between the two approaches. \checkmark : the approach on the row is *better* than the one on column, \times means that it is worse; the number of symbols identifies the strength of the difference: *negligible* (\checkmark , \times), *small* ($\checkmark\checkmark$, $\times\times$), *medium* ($\checkmark\checkmark\checkmark$, $\times\times\times$), *large* ($\checkmark\checkmark\checkmark\checkmark$, $\times\times\times\times$))

(a) Random search (*RndSearch*)

	$S4N4M4RS_{min}0.2RS_{max}1.5$	$S4N4M4RS_{min}0.2RS_{max}2$	$S4N4M4RS_{min}0.6RS_{max}1.5$	$S4N4M4RS_{min}0.6RS_{max}2$	$S4N4M5RS_{min}0.2RS_{max}1.5$	$S4N4M5RS_{min}0.2RS_{max}2$	$S4N4M5RS_{min}0.6RS_{max}1.5$	$S4N4M5RS_{min}0.6RS_{max}2$	$S5N5M4RS_{min}0.2RS_{max}1.5$	$S5N5M4RS_{min}0.2RS_{max}2$	$S5N5M4RS_{min}0.6RS_{max}1.5$	$S5N5M4RS_{min}0.6RS_{max}2$	$S5N5M5RS_{min}0.2RS_{max}1.5$	$S5N5M5RS_{min}0.2RS_{max}2$	$S5N5M5RS_{min}0.6RS_{max}1.5$	$S5N5M5RS_{min}0.6RS_{max}2$
$S4N4M4RS_{min}0.2RS_{max}1.5$	-															
$S4N4M4RS_{min}0.2RS_{max}2$		-			XXX	XXX		XXX								
$S4N4M4RS_{min}0.6RS_{max}1.5$			-													
$S4N4M4RS_{min}0.6RS_{max}2$				-												
$S4N4M5RS_{min}0.2RS_{max}1.5$		✓✓✓			-								✓✓✓	✓✓✓	✓✓✓	✓✓✓
$S4N4M5RS_{min}0.2RS_{max}2$		✓✓✓				-					✓✓✓		✓✓✓	✓✓✓	✓✓✓	✓✓✓
$S4N4M5RS_{min}0.6RS_{max}1.5$							-									
$S4N4M5RS_{min}0.6RS_{max}2$		✓✓✓						-					✓✓✓	✓✓✓	✓✓✓	✓✓✓
$S5N5M4RS_{min}0.2RS_{max}1.5$									-							
$S5N5M4RS_{min}0.2RS_{max}2$		✓✓✓				XXX					-		✓✓✓	✓✓✓	✓✓✓	✓✓✓
$S5N5M4RS_{min}0.6RS_{max}1.5$												-				
$S5N5M4RS_{min}0.6RS_{max}2$																
$S5N5M5RS_{min}0.2RS_{max}1.5$					XXX	XXX		XXX		XXX			-			
$S5N5M5RS_{min}0.2RS_{max}2$					XXX	XXX		XXX		XXX				-		
$S5N5M5RS_{min}0.6RS_{max}1.5$					XXX	XXX		XXX		XXX				-		
$S5N5M5RS_{min}0.6RS_{max}2$					XXX	XXX		XXX		XXX					-	

(b) $(1+1)$ -EA

[illegible]

Table 4: Statistical comparison between $(1+1)$ -EA and random search ($RndSearch$) used in CRAG. (Legend. \equiv : no significant difference between the two search algorithms. \checkmark : $(1+1)$ -EA is *better* than $RndSearch$, \times means that it is worse; the number of symbols identifies the strength of the difference: *negligible* (\checkmark , \times), *small* ($\checkmark\checkmark$, $\times\times$), *medium* ($\checkmark\checkmark\checkmark$, $\times\times\times$), *large* ($\checkmark\checkmark\checkmark\checkmark$, $\times\times\times\times$))

(a) #fail	
\equiv	$S4N4M4RS_{min}0.2RS_{max}1.5$
\equiv	$S4N4M4RS_{min}0.2RS_{max}2$
\equiv	$S4N4M4RS_{min}0.6RS_{max}1.5$
$\checkmark\checkmark\checkmark$	$S4N4M4RS_{min}0.6RS_{max}2$
\equiv	$S4N4M5RS_{min}0.2RS_{max}1.5$
\equiv	$S4N4M5RS_{min}0.2RS_{max}2$
$\checkmark\checkmark\checkmark$	$S4N4M5RS_{min}0.6RS_{max}1.5$
\equiv	$S4N4M5RS_{min}0.6RS_{max}2$
\equiv	$S5N5M4RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.2RS_{max}2$
\equiv	$S5N5M4RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.6RS_{max}2$
\equiv	$S5N5M5RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.2RS_{max}2$
\equiv	$S5N5M5RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.6RS_{max}2$
(b) Tests	
\equiv	$S4N4M4RS_{min}0.2RS_{max}1.5$
\equiv	$S4N4M4RS_{min}0.2RS_{max}2$
\equiv	$S4N4M4RS_{min}0.6RS_{max}1.5$
\equiv	$S4N4M4RS_{min}0.6RS_{max}2$
\equiv	$S4N4M5RS_{min}0.2RS_{max}1.5$
\equiv	$S4N4M5RS_{min}0.2RS_{max}2$
\equiv	$S4N4M5RS_{min}0.6RS_{max}1.5$
\equiv	$S4N4M5RS_{min}0.6RS_{max}2$
\equiv	$S5N5M4RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.2RS_{max}2$
\equiv	$S5N5M4RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.6RS_{max}2$
\equiv	$S5N5M5RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.2RS_{max}2$
\equiv	$S5N5M5RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.6RS_{max}2$
(c) div	
\equiv	$S4N4M4RS_{min}0.2RS_{max}1.5$
\equiv	$S4N4M4RS_{min}0.2RS_{max}2$
\equiv	$S4N4M4RS_{min}0.6RS_{max}1.5$
\equiv	$S4N4M4RS_{min}0.6RS_{max}2$
\equiv	$S4N4M5RS_{min}0.2RS_{max}1.5$
$\times\times\times$	$S4N4M5RS_{min}0.2RS_{max}2$
\equiv	$S4N4M5RS_{min}0.6RS_{max}1.5$
$\times\times\times$	$S4N4M5RS_{min}0.6RS_{max}2$
\equiv	$S5N5M4RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.2RS_{max}2$
\equiv	$S5N5M4RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M4RS_{min}0.6RS_{max}2$
\equiv	$S5N5M5RS_{min}0.2RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.2RS_{max}2$
\equiv	$S5N5M5RS_{min}0.6RS_{max}1.5$
\equiv	$S5N5M5RS_{min}0.6RS_{max}2$