

**PUBLICATIONS (Peer-reviewed):** [WIXHIQVV VXSJUYVIH EUI XQHIUQIH](#)

\*++' ?RdaVcd% 8%' **Hopcroft, R.R.**% @Z`cS`V% I '% A` ^SRcU% ; "% A` aVk&JccfeZR% 6'% :gVcVee% ?'9' !  
GZTYRcUd`\_% 6' ?' #+)+,\$ <V]ReZ\_` fd ]RcgRTVR\_ k`` a]R\_ \e` \_ TR\_ V\_YR\_TV ec` aYZT ecR\_dWVc R\_U TRcS`\_  
dVbfVdecReZ`\_ ' AUHQHV 4GR0% 4YR0%



2,' GfekV %>% ! R.R. Hopcroft' +)\*1' 6Sf\_UR\_TV% SZ^ ^Rdd R\_U T^ ^ ^ f\_Zej decfTefcV `W VaZaV]RXZT  
k` `a]R\_\e` \_Z\_ eYV 8R\_RUR 7RdZ\_ ' 9% >0EQNWRQ ?IW% **40:** -1/&-22'

00' CZXc`% A'B'% B'K' 6\_XV]@' 7]RTY` hZR\&HR^`]j \% **R.R.**

/ -' 8` j]V% @'D'% <'6' <ZSd`\_% @' =VUdec` ^% 6' =Vc^R\_\_% ! **R.R. Hopcroft.** +)\* , ' O``a]R\_\e`\_  
SZ` ^Rdd% RUGVTez`\_ R\_U ac` UfTez`\_ ` eYV \_` ceYVc\_ <f]W` W 6]Rd\ R dYV]W Wc` ^ dZ^ f]Rez`\_d R\_U WZV]U  
` SdVcgRez`\_d' 9% ; EU% @/V% **1283** \*1.&+)O'

/ , ' 9Rj% G='% I '?' L VZ\_XRce\_Vc% **R.R. Hopcroft%** A'6'B' 6Vced% 6'A' 7]R\_TYRcU% 6': ' <R]]% 7'?'  
<R]JRhRj% 9': ' =R\_\_Rj% 7'6' =` ]]RURj% ?'I' B ReYzd% 7'A' C` cTc` dd% ?'B' FfVdeV]% ! H'H' L ZdU` ^'  
+)\* , ' I YV ` WdY` cV \_` ceYVRdeVc\_ 8Yf\TYZ HVR3 R T` ^ a]Vi YZXY&]ReZefUV dj deV ^' 2RQ% @LI0J ?I% **673**  
\*-0&\*/ . '

/+' FfVdeV]% ?'B' 8' 8]Rc\V% ! **R.R. Hopcroft**

. )' **Hopcroft, R.R.** ! @'C' @`d`S` \ `gR' +)\*)' 9ZdecZSfeZ` \_ R\_U VXX ac`UfTeZ` \_ `W >VIXHRGE0EQXV  
daVTZVd Z\_ eYV 8Yf \TYZ HVR' 3IIS\$@IE ?IV% 88% 573-2&./

-2' **Hopcroft, R.R.,** @'C' @`d`S` \ `gR ! 6'> EZ TYf\ '+' +)\*)' O``a]R\_\e` \_ T` ^ ^ f\_Zej aReeVc\_d Z\_ eYV  
8Yf \TYZ HVR UfcZ\_X df ^ ^ Vc +))- 3IIS\$@IE ?IV% 88% 573 +0&,2

-1' @`d`S` \ `gR@'C' ! **R.R. Hopcroft'** +)\*)' 9ZgVcdZej R\_U gVceZTR] UZdecZSfeZ` \_ `W ^ Vd`k``a]R\_\e` \_ Z\_  
d 8R\_RUR 7RdZ\_ ' 3IIS\$@IE ?IV% 88% 573 2/&\*\*)

-0' GRd\`WW@'6' % **R.R. Hopcroft%** @'C' @`d`S` \ `gR?': ' EfcTV]] ! B' N` f\_XS]feY' +)\*)' ?V]ZVd f

, , ' AZf% = ! **R.R. Hopcroft**' +)) /' <c` heY R\_U UVgV]` a^V\_e `W <IRGE0EQXV J0IPMQKIUM&S0XPGLUXV Z\_ eYV \_`ceYVc\_ <f]W `W 6]Rd\|R3 gR]ZUREZ` \_`W eYV RceZWZTZR] T`Y`ce ^VeY`U Z\_ T` ]U hReVcd' 9% >0EQNWRQ ?IV% 283 10&\*)\*%

, +' **Hopcroft, R.R.** ! 7'= G`Szd` \_`+) . ' CVh ^Vd` aV]RXZT ]RcgRTVR\_d Z\_ eYV XV\_fd 5UMM00EUME Wc` ^ B` \_eVcVj 7Rj% 8R]ZW` c\_ZR' 9% ; EU% 1MR0% OVVRG% 853 // .&/01'

, \*' CRAa% ?'B % **R.R. Hopcroft** 8'I' 7RZVc ! 8' 8]Rc\V+). ' 9ZdecZSfeZ` \_R\_U daVTZVd&daVTZWT VXX ac`UfTeZ` \_`W >VIXHRGE0EQXV Z\_ eYV <f]W `W 6]Rd\|R' 9% >0EQNWRQ ?IV% 273 -\*.&-+/'

, )' **Hopcroft, R.R.** 8' 8]Rc\V% G'? CV]d` \_` ! @'6' GRd\`WW+'). ' O` `a]R\_ \e` \_ 8` ^ ^ f\_ZeZVd `W eYV 6cTeZT` d 8R\_RUR 7RdZ\_3 eYV T` \_ecZSfeZ` \_Sj d^R]Vc eRiR' >R0EU 1MR0% 28: \*20&+)' /'

+2' **Hopcroft, R.R.** 8' 8]Rc\V% 6' < 7jcU ! 6'> EZ\_TYf\ '+'). ' IYV aRcRU` i `W ; IWUMHME daa' VXX ac`UfTeZ` \_cReVd3 6 \_Vh eVTY\_ZbfV R\_U ^VRdfcV^V\_ed Wc` ^ eYV T` RdeR] <f]W `W 6]Rd\|R' ; EU% 4GR0% >URK% @IU% 2863 \*2,&+)\*'

+1' GRd\`WW @'6' ?:' EfcTV]] ! **R.R. Hopcroft.** +)). ' <V]ReZ` \_fd k` `a]R\_ \e` \_`W eYV 6cTeZT DTVR\_3 M Q VWMX `SdVcgReZ` \_d f\_UVc eYV ZTV' >R0EU 1MR0% 28: +)O&+\*0'

+0' H]ReVc% A'B' ! **R.R. Hopcroft.** +)). ' 9VgV]` a^V\_e Xc` heY% R\_U VXX ac`UfTeZ` \_`W 2IQURSEKIV EFHRPMQE0MV Z\_ eYV dfSRcTeZT ERTZWT' 9% >0EQNWRQ ?IV% 273 0\*&01'

+/- **Hopcroft, R.R.** +)). ' 9ZgVcdZej Z\_ ]RcgRTVR\_d3 = h ^R\_j daVTZVd5 aa' - .&.0' 8Q/GVda` \_dV `W ^RcZ\_V VT` djdeV^d e` X]`SR] TYR\_XV3 VT` ]`XZTR] Z^aRte` W RaaV\_UZTf]RcZR\_d' <`cd\j% <% B'? N` f\_XS]feY ! 9' 9VZSV] #VUd\$ <`cU` \_R\_U 7cVRTY HTZV\_eZWZT EfS]ZdYVcd' ERcZd'

+. ' G`dV% @% ?'8' G`WW ! **R.R. Hopcroft**' +)) - Ec`UfTeZ` \_`W >IQMOME EYMRUVWUMV Z\_ @Z\_Xde` \_=RcS` fc% ?R^RZTR' 9% >0EQNWRQ ?IV% 263 /).&\*.' '

+- **Hopcroft, R.R.** ! ?'8' G`WW +), ' GVda` \_dV `W ec`aZTR] ^RcZ\_V aYje`a]R\_ \e` \_T` ^ ^ f\_ZeZVd e` ^R\_Zaf]ReZ` \_d `W \_fecZV\_e T` \_TV\_ecReZ` \_R\_U XcrkZ\_X acVddfcV' IX00% ; EU% @GM% 733 ,20&+)

+, ' EVcdRU% <% **R.R. Hopcroft** B '@ L VSSVc ! ?'8' G`WW +), ' 6Sf\_UR\_TV% SZ` ^Rdd R\_U ac`UfTeZ` \_`W TeV\_` aY` cVd R\_U ^VUfdRV `WW @Z\_Xde` \_?R^RZTR' IX00% ; EU% @GM% 733 ,02&,2/

++ **Hopcroft, R.R.**, 8' 8]Rc\V ! ;' E' 8YRgVk'+)) +& 8` aVa` U T` ^ ^ f\_ZeZVd Z\_ B` \_eVcVj 7Rj UfcZ\_X eYV \*220 e` \*222 : ] Czm` R\_U AR CzmR' >URK% =GIEQRKU% 543 +.\*&+, '

+\* L VZ\_XRce\_Vc% I'?' IW E0% #**R.R. Hopcroft** R^` \_X \*1` eYVcd\$ +)) +& IYV C` ceYVRde ERTZWT <AD7 : 8 ac`XcR^3 T` RdeR] <f]W `W 6]Rd\|R' =GIEQRKUESL/ 153 -1&/, '

+) ' CZV]dV% I'<% :'; ' Bn]Vc% H' HReRa` ^Z% B' GZ\_XfVeeV ! **R.R. Hopcroft**' +)) + : XX YReTYZ\_X cReV `W eYV TjT]` a` ZU T` aVa` U =MLRQE VM P M0MV Z\_ RctezT R\_U eV^ aVcReV hReVcd' ; EU% 4GR0% >URK% @IU% 2363 ,)\*&, /'

\*2' B Rcz\_V O``a]R\_ \e` \_8` ]]` b fZf^ + +)) \*#**R.R. Hopcroft** R^` \_X - ) T` \_ecZSfe` cd\$ ; fefcV ^RcZ\_V k` `a]R\_ \e` \_cVdVrcTY R aVcdavTeZgV' ; EU% 4GR0% >URK @IU% 2223 +20&, 1%

\*1' **Hopcroft, R.R.**, ;' E' 8YRgVk ! ?'8' G`WW +)) \*% HZkV aRcRUZX^d Z\_ T` aVa` U T` ^ ^ f\_ZeZVd3 R cV& ViR ^Z\_ReZ` \_ 7[HURFMR0RKME 453/4543\*, ,&\*-\*

\*0' **Hopcroft, R.R.** ! 7'= G`Szd` \_`\*222' 6 \_Vh ^Vd` aV]RXZT ]RcgRTVR\_ ; IVRGLRUHEIXV IU/WLURGISLE0XV% da` \_`g% Wc` ^ B` \_eVcVj 7Rj% hZyE UVdTcZaeZ` \_`W Zed WZ]eVcZ\_X Y` fdV' 9% >0EQNWRQ ?IV% 213 \*2+, &\*2, 0'

\*/' **Hopcroft, R.R.** ! ?'8' G`WW \*221' O``a]R\_ \e` \_Xc` heY cReVd3 eYV Z\_W]fV\_TV `W WV^RJV dZkV R\_U cVd` fcTVd` \_VXX ac`UfTeZ` \_`W ec`aZTR] ^RcZ\_V T` aVa` Ud' ; EU% 1MR0% 1323 02&1/'

\*.' **Hopcroft, R.R.%** ! ?'8' G`WW' \*221' O`` a]R\_ \e` \_ Xc` heY cReVd3 eYV Z\_W]fV\_TV ` W dZkV Z\_ \_Rfa]ZZ ` W  
ec` aZTR] ^RcZ\_V T` aVa` UZeVd' ; EU% IMR0% **1323** 10&2/'

\*-' **Hopcroft, R.R.%** ! ?'8' G`WW' \*221' Ec`UfTeZ` \_ `W ec` aZTR] ]RcgRTVR\_d Z\_ @Z\_Xde` \_ =RcS` fc% ?R ^RZTR3  
RcV hV ZX\_ `cZ\_X R\_ Z^a` ceR\_e dVT` \_URcj ac` UfTVc5 9% >0EQNWRQ ?IV% **203** ..0&. /2'

\*,' **Hopcroft, R.R.%** ?'8' G`WW' ! ='6' 7^f^R\_` \*221' O`` a]R\_ \e` \_ Xc` heY cReVd3 ]RcgRTVR\_d ` W eYV XV\_fd  
OSSIQHNGX0EUME% 5UWW00EUME R\_U =MNR0IXUE Wc` ^ ec` aZTR] hReVcd' 9% >0EQNWRQ ?IV% **203** .,2&...'

\*+' **Hopcroft, R.R.%** ?'8' G`WW ! 9' A` ^SRcU' \*221' Ec`UfTeZ` \_ `W ec` aZTR] T` aVa` Ud Z\_ \_VRcdY` cV hReVcd  
`WW @Z\_Xde` \_ % ?R ^RZTR3 eYV Z^a` ceR\_TV ` W d^R] daVTZVd' ; EU% IMR0% **1303** .2,&/)-'

\*\*\* **Hopcroft, R.R.%** ?'8' G`WW B '@' L VSSVc% ! ?'9' H' L Zee' \*221' O`` a]R\_ \e` \_ <c` heY GReVd3 eYV  
Z\_W]fV\_TV ` W dZkV R\_U cVd` fcTVd Z\_ec` aZTR] ^RcZ\_V T` aVa` UZeVd' ; EU% IMR0% **1323** /0&00'

\*)' I fc\_Vc% ?'I '% **R.R. Hopcroft%** ?'6' AZ\_T`\_]% 8' HRdd^R\_ =fVdeZd% E'6' I VdeVc% ! ?'8' G`WW' \*221'  
O`` a]R\_ \e` \_ WVVUZ\_X VT` ]` Xj3 XcRkZ\_X Sj ^RcZ\_V T` aVa` Ud R\_U T]RU` TVcR\_d fa` \_ TjR\_ ` SRTeVcZR Wc` ^  
@Z\_Xde` \_ =RcS` fc% ?R ^RZTR' ; EU% 4GR0% **193** \*2.&+ )1'

2' **Hopcroft, R.R.%** ! ?'8' G`WW' \*221' O`` a]R\_ \e` \_ Xc` heY cReVd3 UZV] VXX ac` UfTeZ` \_ Z\_ eYV T` aVa` Ud  
=MLRQE% 4XWIUS%QE R\_U 2RU/GEIXV Wc` ^ ec` aZTR] hReVcd' 9% >0EQNWRQ ?IV% **183** 012&1),'

1' **Hopcroft, R.R.%** ! ?'8' G`WW' \*221' O`` a]R\_ \e` \_ <c` heY GReVd3 : iecR` cUZ\_Rcj ac` UfTeZ` \_ Sj eYV  
]RcgRTVR\_ =MNR0IXUE HMRNGE Z\_ec` aZTR] hReVcd' 9% >0EQNWRQ ?IV% **17**

1' 7]fY^% 7'6%' G'G' <cRUZ\_XVc ! **R.R. Hopcroft**' +)\*'\* 6cTeZT DTVR\_ 9ZgVcdZej3 dj\_eYVdZd' ; EU% I MRHNY%  
**41:** \*-&

0' HTYZRaRcV]]Z% H' ! **R.R. Hopcroft**. +)\*'\* I YV 8V\_dfd `W 6\_eRcTeZT BRcZ\_V AZWV3 9ZgVcdZej R\_U 8YR\_XV  
Z\_H` feYVc\_ DTVR\_ :T`djdeV^d' 3IIS\$@IE ?IV% 88% **58:** \*-&-

/' <cRUZ\_XVc% G% 7'6 7]fY^% **R.R. Hopcroft** 6' <VScf\% @'C' @`d`S` \`gR% 7' HzcV\_\`% ! ?'B'  
L ' +)\*' BRcZ\_V AZWV Z\_eYV 6cTeZT' >\_3 6'9' 9' BT>\_ejcV#VU\$ %  
7]RT\ hV]] EfS]ZdYZ\_X AeU% CVh N^c\% aa'\*1, &+)+

. 7]fY^% 7'6% @'>V\_ **R.R. Hopcroft**. +)\*' DSdVcgReZ`\_d R\_U Via]`cReZ`\_`WeYV 6cTeZT'd 8R\_RUR  
7RdZ\_ R\_U eYV 8Yf\TYZ HVR3 eYV =ZUVV\_ DTVR\_ R\_U GJH6A86 ViaVUZeZ`\_d% 3IIS\$@IE ?IV% 88% .03\*&  
\*\_

-' 9RgZd% 8' H' ! **R.R. Hopcroft**' +)) 1' I YV UcZWVcd' =GIEQ 6IRKU% ; EK# **July 2008** +, &- )'

, ' 7]fY^% 7'6% G' <cRUZ\_XVc% ;' =oe^R\_\_% **R.R. Hopcroft** 6' <cVSf\ ! 7'> HzcV\_\`% +)) 1' :Z\_  
OV\_dfd UVd BRcZ\_V AVSV\_d Z\_UVc 6c\ezd' IMR0% XQVIUIU DIMW **38:** -)&-2'

+ ' 8cR\_V% @'?' E`eeVc ! **R.R. Hopcroft** OUGWNG ?IV% B%@%  
**193**, &\*)

\*' **Hopcroft, R.R.** +)) , HaZ\_V]Vdd h`\_UVcd3 eYV aV]RXZT WRf\_R' 2XUUHQW/ 9% ; EU% 4H% **193** \*)&+\*

## MAJOR REPORTS:

\*+' 6 fdeVc% E% 8]Rc\% B' G% =R]]&HaV\_TVc% ?% =`aTc`We% G' G% >\_XV]d% ?% AVgZ\_\% A' 6% BVeRiRd% 6% VeR]'  
+)+' 8YRaeVc 0A' 8`\_eZ\_V\_eR] H]`aVd R\_U HfS^RcZ\_V 8R\_j`\_d' 8Q L`c]U DTVR\_ 8`f\_TZ] & HVT`\_U  
6ddVdd^V\_e GVa`ce' aa'-, 0&- .+'

\*\*\*' B]`\_V% I% 6kkRc\% B% =`aTc`We% G' G% ERc\% 8% IRU` \`c\% @' IY`c\_Uj\W% B% R\_U N``% H' +)+)'  
8YRaeVc / 6' E]R\_\e`\_#EYje`a]R\_\e`\_O`\_a]R\_\e`\_ 7RTeVcZR R\_U KZcfVd\\$ 8Q L`c]U DTVR\_ 8`f\_TZ] &  
HVT`\_U 6ddVdd^V\_e GVa`ce' aa'\*.\*.&\*- )

\*)' A`gV[\`j% 8% 8' g`\_FfZ]WW]Ue% **R.R. Hopcroft** B' E`f]Z\_\% B' IYR]Vc% 6' 6cV\_Ue% =' 9VSVd% 6'  
<Zd]Rd\_\% R\_U @'C' @`d`S` \`gR' +)\*' 0' E]R\_\e`\_ERXVd / ,&11 M Q 86 ; ; VUze`c' HeReV `WeYV 6cTeZT  
BRcZ\_V 7Z`UZgVcdZej GVa`ce' 8`\_dVcgReZ`\_`W 6cTeZT ; ]`cR R\_U ; Rf\_R #86 ; ; \$6\fcVjcZ] >TV]R\_U'

2' H\_V]Xc`gV% E% : ' K' 7VcXYV% E' BZ]`d]RgZTY% E' 6cTYR^SRf% > 7RZ]]j% 6' 7cR\_Ue% 6' 7fT\]Z\_\% B'  
8]Rc\% ; ' 9RYU`fY<fVSRd% E' =R]aZ\_\% **R.R. Hopcroft** @' @RdTY\_Vc% 7' ARdT]Vd% A' 6' AVgZ\_\% H'  
BV\_UV\_&9VfVc% 6' BVeRiRd% 9' DSfcR% G' G' GVvgVd% I' Gj\_VRcd`\_\% @' He`T\ d% B' IRckZR% 9'  
IzeEV\_d`c K' If\_ZT]ZWWV% 7' L R]JRTV% G' LR\_JVdd% I' L VSS% E' 7Vc\_R% ?' GZTV% ! 6' G`dV\_SVcX' +)\*' /  
8YRaeVc , - <]SR] EReeVc\_d Z\_BRcZ\_V 7Z`UZgVcdZej' ERXVd \*,&0 M Q IYV ; Zede <]SR] >\_eVXcReVU BRcZ\_V  
6ddVdd^V\_e #L`c]U DTVR\_ 6ddVdd^V\_e > J\_ZeVU CReZ`\_d% CVh N^c\'

1' BZ]`d]RgZTY% E% I' L VSS% E' H\_V]Xc`gV% : ' K' 7VcXYV% @' @RdTY\_Vc% E' C' =R]aZ\_\% G' G' GVvgVd% 7'  
ARdT]Vd% B' IRckZR% 7' E' L R]JRTV% C' 9f]gj% 8' 6' Hz^aWV\_U`cWVc% < HTYZ]]Z\_XVc% 6' 7`fdeR\_j% 7'  
7' 8]]JVeV% ?' : <cRgVd% 9' DSfcR% B' :UhRcUd% B' 8]Rc\% @' He`T\ d% I' B`cRe`\_K' If\_ZT]ZWWV% **R.R.**  
**Hopcroft** E' 6cTYR^SRf% E' EVaZ\_\% ?' ?`Y\_ L' If\_V]%; ' B`cVekd`Y\_\% : ' :dT`SRc&7cZ`\_Vd% ='  
D[RgVVc% ?' <SZ\_\% B' CR\R`\_R% @' ; f[Z\fcR% = NR^R\_\% M' AZ% @' KV\_\ReRcR^R\_\% 8' GRXYf\_ReYR\_\%  
8'A' <cZWWZeYd% C' ?' 7Ri% 6' ?' 7fe]Vc% 6' 7cR\_Ue% = ?' <cZWWZeYd% ! ?' GZTV' +)\*' 8YRaeVc , . : ieV\_e  
`W 6ddVdd^V\_e `W BRcZ\_V 7Z]`XZTR] 9ZgVcdZej' ERXVd \*,&1 M Q IYV ; Zede <]SR] >\_eVXcReVU BRcZ\_V  
6ddVdd^V\_e #L`c]U DTVR\_ 6ddVdd^V\_e > J\_ZeVU CReZ`\_d% CVh N^c\'

0' BZTYV% 8% ?' GZTV% 7' 7]fY^% 8' 9fReV% K' <R]]fTZ% I' <Rde`\_ ; ?' A' <`cUZ]]`% G' <cRUZ\_XVc% **R.R.**  
**Hopcroft** C' ?V\_dV\_\% @' B fde`\_V\_\% I' B fde`\_V\_\% I' <`CZV]dV\_\% 6' CZV^Z% = Gf\_V H\`UR] #+)\*, \$

6cTeZT BRcZ\_V :T`djdEV^d'>\_3 +)\*,#VU'\$ 6cTeZT 7Z`U