

```

lin@asdf:~/path-to-shell-file/computation$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          36 bits physical, 48 bits virtual
Byte Order:             Little Endian
CPU(s):                 2
  On-line CPU(s) list:  0,1
Vendor ID:              GenuineIntel
Model name:             Intel(R) Core(TM)2 Duo CPU     L7300  @ 1.40GHz
CPU family:             6
Model:                  15
Thread(s) per core:     1
Core(s) per socket:     2
Socket(s):              1
Stepping:               10
Frequency boost:        enabled
CPU(s) scaling MHz:     57%
CPU max MHz:            1401.0000
CPU min MHz:            800.0000
BogoMIPS:               2793.03
Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge
mca cmov pat pse36 clflush dts acpi mmx fxsr
                        r sse sse2 ht tm pbe syscall nx lm constant_tsc
arch_perfmon pebs bts rep_good nopl cpuid aperfm
                        perf pni dtes64 monitor ds_cpl est tm2 ssse3 cx16 xtpr
pdcm lahf_lm pti dtherm ida
Caches (sum of all):
  L1d:                  64 KiB (2 instances)
  L1i:                  64 KiB (2 instances)
  L2:                   4 MiB (1 instance)
NUMA:
  NUMA node(s):         1
  NUMA node0 CPU(s):    0,1
Vulnerabilities:
  Gather data sampling:  Not affected
  Itlb multihit:        KVM: Mitigation: VMX unsupported
  L1tf:                 Mitigation; PTE Inversion
  Mds:                  Vulnerable: Clear CPU buffers attempted, no microcode;
SMT disabled
  Meltdown:             Mitigation; PTI
  Mmio stale data:      Unknown: No mitigations
  Reg file data sampling: Not affected
  Retbleed:             Not affected
  Spec rstack overflow: Not affected
  Spec store bypass:    Vulnerable
  Spectre v1:           Mitigation; usercopy/swapgs barriers and __user
pointer sanitization
  Spectre v2:           Mitigation; Retpolines; STIBP disabled; RSB filling;
PBRSE-eIBRS Not affected; BHI Not affected
  Srbds:                Not affected
  Tsx async abort:      Not affected
lin@asdf:~/path-to-shell-file/computation$ sh computation.sh
start_time: 2025-05-31 06:24:24
*****fortran program starts*****
*****
Let us begin !
*****
Boundaries of sequential excavation are set, proceed
*****
Bidirectional conformal mapping of 1-th step excavation
N_{1} =          500
M_{1} =          150
zc1=          (-4.91753137520952093E-007, -18.750000000000011)
Outer radius of forward mapping annulus for 1th-step excavation =

```

```

1.000000000000000002
Inner radius of forward mapping annulus for 1th-step excavation =
0.19143032468271481
arg(t_{1,1})/pi*180 = -107.89104610091496
arg(t_{2,1})/pi*180 = 107.89104383446261
*****
Bidirectional conformal mapping of 2-th step excavation
N_{2} = 680
M_{2} = 150
zc2= (-8.4852820570342704, -21.514719055676075)
Outer radius of forward mapping annulus for 2th-step excavation =
0.99999999999999956
Inner radius of forward mapping annulus for 2th-step excavation =
0.21857573045672088
arg(t_{1,2})/pi*180 = -119.64452437889989
arg(t_{2,2})/pi*180 = 104.99383259733612
*****
Bidirectional conformal mapping of 3-th step excavation
N_{3} = 860
M_{3} = 120
zc3= (-4.91753137520952093E-007, -18.750000000000011)
Outer radius of forward mapping annulus for 3th-step excavation =
1.00000000000000004
Inner radius of forward mapping annulus for 3th-step excavation =
0.24148836886364622
arg(t_{1,3})/pi*180 = -115.61411055595333
arg(t_{2,3})/pi*180 = 115.61411055540908
*****
Bidirectional conformal mapping of 4-th step excavation
N_{4} = 876
M_{4} = 120
zc4= (0.0000000000000000, -26.250000000000000)
Outer radius of forward mapping annulus for 4th-step excavation =
1.00000000000000002
Inner radius of forward mapping annulus for 4th-step excavation =
0.24805425293794223
arg(t_{1,4})/pi*180 = -116.75394626765754
arg(t_{2,4})/pi*180 = 116.75394627134328
*****
Bidirectional conformal mapping of 5-th step excavation
N_{5} = 816
M_{5} = 150
zc5= (0.0000000000000000, -26.250000000000000)
Outer radius of forward mapping annulus for 5th-step excavation =
1.00000000000000004
Inner radius of forward mapping annulus for 5th-step excavation =
0.25551814064804546
arg(t_{1,5})/pi*180 = -119.77031723721061
arg(t_{2,5})/pi*180 = 116.18536385679887
*****
Bidirectional conformal mapping of 6-th step excavation
N_{6} = 756
M_{6} = 150
zc6= (0.0000000000000000, -26.250000000000000)
Outer radius of forward mapping annulus for 6th-step excavation =
1.00000000000000002
Inner radius of forward mapping annulus for 6th-step excavation =
0.26225689833212767
arg(t_{1,6})/pi*180 = -119.05137581666369
arg(t_{2,6})/pi*180 = 119.05137581755670
*****
Bidirectional conformal mapping of 7-th step excavation
N_{7} = 988
M_{7} = 150

```

```

zc7= (0.0000000000000000, -30.000000000000000)
Outer radius of forward mapping annulus for 7th-step excavation =
1.0000000000000000
Inner radius of forward mapping annulus for 7th-step excavation =
0.26661024497968133
arg(t_{1,7})/pi*180 = -119.76795995340333
arg(t_{2,7})/pi*180 = 119.76795998776129
*****
Bidirectional conformal mapping of 8-th step excavation
N_{8} = 948
M_{8} = 150
zc8= (0.0000000000000000, -30.000000000000000)
Outer radius of forward mapping annulus for 8th-step excavation =
1.0000000000000000
Inner radius of forward mapping annulus for 8th-step excavation =
0.27260086804929806
arg(t_{1,8})/pi*180 = -122.01850724358142
arg(t_{2,8})/pi*180 = 119.42127143706770
*****
Bidirectional conformal mapping of 9-th step excavation
N_{9} = 908
M_{9} = 150
zc9= (0.0000000000000000, -30.000000000000000)
Outer radius of forward mapping annulus for 9th-step excavation =
1.0000000000000000
Inner radius of forward mapping annulus for 9th-step excavation =
0.27794305186973206
arg(t_{1,9})/pi*180 = -121.55073694017632
arg(t_{2,9})/pi*180 = 121.55073694129628
*****
Conformal mapping finished
Time for conformal mapping = 84 seconds
Mixed boundary problem starts
*****
Solution of 1-th step excavation starts
Fitting coefficient d_{k} of 1-th step, may take a bit of time, please wait...
Minimum module of d_{k} of 1-step excavation = 9.0568170110164994E-010
Fitting coefficient I_{k} of 1-th step, may take a bit of time, please wait...
Minimum module of I_{k} of 1-step excavation = 4.8595412938960129E-009
Resultant of 1-th step excavation = (-1.73626131258641759E-009, -
0.54706577934820277)
Excavation step = 1, Iteration reps = 34
kappa*A_{-1} + B_{-1} = (-1.24077091882954151E-024, 1.66533453693773481E-016)
(A_{-1} - B_{-1}) - I_{-1} = (3.51551760335036762E-
024, 0.0000000000000000)
Ngerr1 = 523 of 1601
Ngerr2 = 1093 of 1601
Maximum |sigma_{y}| = 6.4833044994620781E-003
Maximum |tau_{xy}| = 1.1473463801586379E-002
Average |sigma_{y}| = 5.1130320357206573E-004
Average |tau_{xy}| = 6.2775669868422976E-004
Maximum |sigma_{y}|/gamma*H = 1.0805507499103464 %
Maximum |tau_{xy}|/gamma*H = 1.9122439669310634 %
Average |sigma_{y}|/gamma*H = 8.5217200595344295E-002 %
Average |tau_{xy}|/gamma*H = 0.10462611644737163 %
Maximum s11_{alpha} = 9.7476773005080730E-003
Maximum s12_{alpha} = 1.1854801796426815E-002
Average s11_{alpha} = 5.2181361347135064E-004
Average s12_{alpha} = 3.8746524871973142E-004
Maximum s11_{alpha}/(gamma*H) = 1.6246128834180122 %
Maximum s12_{alpha}/(gamma*H) = 1.9758002994044694 %
Average s11_{alpha}/(gamma*H) = 8.6968935578558448E-002 %
Average s12_{alpha}/(gamma*H) = 6.4577541453288562E-002 %
Maximum s22_{alpha} = 3.9133068959062633

```

\*\*\*\*\*

Solution of 2-th step excavation starts

Fitting coefficient  $d_{\{k\}}$  of 2-th step, may take a bit of time, please wait...

Minimum module of  $d_{\{k\}}$  of 2-step excavation = 5.1290538723110018E-007

Fitting coefficient  $I_{\{k\}}$  of 2-th step, may take a bit of time, please wait...

Minimum module of  $I_{\{k\}}$  of 2-step excavation = 2.4615084450806529E-006

Resultant of 2-th step excavation = (-2.04616830717615730E-004, -

0.77064917852493708)

Excavation step = 2 , Iteration reps = 34

$\kappa A_{\{-1\}} + B_{\{-1\}} = (1.18096721637983570E-016, -1.66533453693773481E-016)$

$(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (-7.75204553327135670E-018, -1.11022302462515654E-016)$

Ngerr1 = 507 of 1601

Ngerr2 = 1040 of 1601

Maximum  $|\sigma_{\{y\}}| = 1.4880163961096399E-002$

Maximum  $|\tau_{\{xy\}}| = 1.3739947272830557E-002$

Average  $|\sigma_{\{y\}}| = 7.3622941474051247E-004$

Average  $|\tau_{\{xy\}}| = 7.5612914256725685E-004$

Maximum  $|\sigma_{\{y\}}|/\gamma H = 2.4800273268493997$  %

Maximum  $|\tau_{\{xy\}}|/\gamma H = 2.2899912121384260$  %

Average  $|\sigma_{\{y\}}|/\gamma H = 0.12270490245675209$  %

Average  $|\tau_{\{xy\}}|/\gamma H = 0.12602152376120948$  %

Maximum  $s11_{\{\alpha\}} = 9.4953166909834796E-002$

Maximum  $s12_{\{\alpha\}} = 8.6911787040311606E-002$

Average  $s11_{\{\alpha\}} = 1.2247971884316205E-003$

Average  $s12_{\{\alpha\}} = 9.6698373481744998E-004$

Maximum  $s11_{\{\alpha\}}/(\gamma H) = 15.825527818305801$  %

Maximum  $s12_{\{\alpha\}}/(\gamma H) = 14.485297840051937$  %

Average  $s11_{\{\alpha\}}/(\gamma H) = 0.20413286473860343$  %

Average  $s12_{\{\alpha\}}/(\gamma H) = 0.16116395580290835$  %

Maximum  $s22_{\{\alpha\}} = 4.9552796378260426$

\*\*\*\*\*

Solution of 3-th step excavation starts

Fitting coefficient  $d_{\{k\}}$  of 3-th step, may take a bit of time, please wait...

Minimum module of  $d_{\{k\}}$  of 3-step excavation = 2.0752662089945005E-008

Fitting coefficient  $I_{\{k\}}$  of 3-th step, may take a bit of time, please wait...

Minimum module of  $I_{\{k\}}$  of 3-step excavation = 3.9215751296052183E-006

Resultant of 3-th step excavation = (1.26969386594548222E-008, -

0.99409043571107747)

Excavation step = 3 , Iteration reps = 86

$\kappa A_{\{-1\}} + B_{\{-1\}} = (2.31610571514847749E-023, 6.66133814775093924E-016)$

$(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (-9.92616735063633210E-024, -5.55111512312578270E-016)$

Ngerr1 = 561 of 1601

Ngerr2 = 1058 of 1601

Maximum  $|\sigma_{\{y\}}| = 1.5550173481308494E-002$

Maximum  $|\tau_{\{xy\}}| = 1.8863715828454124E-002$

Average  $|\sigma_{\{y\}}| = 1.3786128797724023E-003$

Average  $|\tau_{\{xy\}}| = 1.1276736529763523E-003$

Maximum  $|\sigma_{\{y\}}|/\gamma H = 2.5916955802180826$  %

Maximum  $|\tau_{\{xy\}}|/\gamma H = 3.1439526380756875$  %

Average  $|\sigma_{\{y\}}|/\gamma H = 0.22976881329540036$  %

Average  $|\tau_{\{xy\}}|/\gamma H = 0.18794560882939207$  %

Maximum  $s11_{\{\alpha\}} = 0.15725985713229845$

Maximum  $s12_{\{\alpha\}} = 0.10986527144270795$

Average  $s11_{\{\alpha\}} = 2.7295048323315403E-003$

Average  $s12_{\{\alpha\}} = 2.3269745638584516E-003$

Maximum  $s11_{\{\alpha\}}/(\gamma H) = 26.209976188716411$  %

Maximum  $s12_{\{\alpha\}}/(\gamma H) = 18.310878573784660$  %

Average  $s11_{\{\alpha\}}/(\gamma H) = 0.45491747205525679$  %

Average  $s12_{\{\alpha\}}/(\gamma H) = 0.38782909397640858$  %

Maximum  $s22_{\{\alpha\}} = 5.1362305480981671$

\*\*\*\*\*

Solution of 4-th step excavation starts

Fitting coefficient  $d_{\{k\}}$  of 4-th step, may take a bit of time, please wait...  
Minimum module of  $d_{\{k\}}$  of 4-step excavation = 7.0693860899075994E-008  
Fitting coefficient  $I_{\{k\}}$  of 4-th step, may take a bit of time, please wait...  
Minimum module of  $I_{\{k\}}$  of 4-step excavation = 3.0532439233220360E-006  
Resultant of 4-th step excavation = (-1.35666037337073552E-007, -1.4049559152721962)

Excavation step = 4 , Iteration reps = 145  
 $\kappa A_{\{-1\}} + B_{\{-1\}} = (-1.45583787809332871E-022, 9.99200722162640886E-016)$   
 $(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (-2.64697796016968856E-023, -1.11022302462515654E-015)$

Ngerr1 = 566 of 1601  
Ngerr2 = 1053 of 1601  
Maximum  $|\sigma_{\{y\}}| = 1.1181102525414655E-002$   
Maximum  $|\tau_{\{xy\}}| = 1.7229402439053434E-002$   
Average  $|\sigma_{\{y\}}| = 9.2177100027841699E-004$   
Average  $|\tau_{\{xy\}}| = 1.0183600109273116E-003$   
Maximum  $|\sigma_{\{y\}}|/\gamma H = 1.8635170875691092$  %  
Maximum  $|\tau_{\{xy\}}|/\gamma H = 2.8715670731755725$  %  
Average  $|\sigma_{\{y\}}|/\gamma H = 0.15362850004640285$  %  
Average  $|\tau_{\{xy\}}|/\gamma H = 0.16972666848788528$  %  
Maximum  $s11_{\{\alpha\}} = 0.13821940177527375$   
Maximum  $s12_{\{\alpha\}} = 0.10648753248207206$   
Average  $s11_{\{\alpha\}} = 3.0475427094827394E-003$   
Average  $s12_{\{\alpha\}} = 2.4667101124996368E-003$   
Maximum  $s11_{\{\alpha\}}/(\gamma H) = 23.036566962545628$  %  
Maximum  $s12_{\{\alpha\}}/(\gamma H) = 17.747922080345344$  %  
Average  $s11_{\{\alpha\}}/(\gamma H) = 0.50792378491378987$  %  
Average  $s12_{\{\alpha\}}/(\gamma H) = 0.41111835208327285$  %  
Maximum  $s22_{\{\alpha\}} = 6.8480139022969908$

\*\*\*\*\*

Solution of 5-th step excavation starts

Fitting coefficient  $d_{\{k\}}$  of 5-th step, may take a bit of time, please wait...  
Minimum module of  $d_{\{k\}}$  of 5-step excavation = 1.9951842675171658E-007  
Fitting coefficient  $I_{\{k\}}$  of 5-th step, may take a bit of time, please wait...  
Minimum module of  $I_{\{k\}}$  of 5-step excavation = 4.5194038847919437E-005  
Resultant of 5-th step excavation = (-9.35238398981002255E-005, -1.6225336388198157)

Excavation step = 5 , Iteration reps = 36  
 $\kappa A_{\{-1\}} + B_{\{-1\}} = (7.18148414000085999E-017, 6.66133814775093924E-016)$   
 $(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (-4.80301562411078464E-017, -2.22044604925031308E-016)$

Ngerr1 = 555 of 1601  
Ngerr2 = 1040 of 1601  
Maximum  $|\sigma_{\{y\}}| = 8.2308456997184920E-003$   
Maximum  $|\tau_{\{xy\}}| = 1.1990227129575993E-002$   
Average  $|\sigma_{\{y\}}| = 7.2520613492881806E-004$   
Average  $|\tau_{\{xy\}}| = 8.4752203649773059E-004$   
Maximum  $|\sigma_{\{y\}}|/\gamma H = 1.3718076166197488$  %  
Maximum  $|\tau_{\{xy\}}|/\gamma H = 1.9983711882626658$  %  
Average  $|\sigma_{\{y\}}|/\gamma H = 0.12086768915480302$  %  
Average  $|\tau_{\{xy\}}|/\gamma H = 0.14125367274962175$  %  
Maximum  $s11_{\{\alpha\}} = 0.12259534621803607$   
Maximum  $s12_{\{\alpha\}} = 0.10317697404192815$   
Average  $s11_{\{\alpha\}} = 1.5845757210611550E-003$   
Average  $s12_{\{\alpha\}} = 1.2415587812751011E-003$   
Maximum  $s11_{\{\alpha\}}/(\gamma H) = 20.432557703006012$  %  
Maximum  $s12_{\{\alpha\}}/(\gamma H) = 17.196162340321358$  %  
Average  $s11_{\{\alpha\}}/(\gamma H) = 0.26409595351019249$  %  
Average  $s12_{\{\alpha\}}/(\gamma H) = 0.20692646354585018$  %  
Maximum  $s22_{\{\alpha\}} = 7.9423048722740255$

\*\*\*\*\*

Solution of 6-th step excavation starts

Fitting coefficient  $d_{\{k\}}$  of 6-th step, may take a bit of time, please wait...  
Minimum module of  $d_{\{k\}}$  of 6-step excavation = 1.3774277624796678E-008

Fitting coefficient  $I_{\{k\}}$  of 6-th step, may take a bit of time, please wait...  
Minimum module of  $I_{\{k\}}$  of 6-step excavation = 2.8973919021663347E-007  
Resultant of 6-th step excavation = (-9.75404258689645610E-009, -1.8409345942565059)

Excavation step = 6 , Iteration reps = 33  
 $\kappa A_{\{-1\}} + B_{\{-1\}} = (-5.79026428787119372E-024, -4.44089209850062616E-016)$   
 $(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (-1.65436122510605535E-024, 1.11022302462515654E-015)$

Ngerr1 = 573 of 1601  
Ngerr2 = 1043 of 1601  
Maximum  $|\sigma_{\{y\}}| = 5.1878144339184695E-003$   
Maximum  $|\tau_{\{xy\}}| = 1.1214882501594282E-002$   
Average  $|\sigma_{\{y\}}| = 5.8058990161099827E-004$   
Average  $|\tau_{\{xy\}}| = 7.7145966636081522E-004$   
Maximum  $|\sigma_{\{y\}}|/\gamma^*H = 0.86463573898641166$  %  
Maximum  $|\tau_{\{xy\}}|/\gamma^*H = 1.8691470835990474$  %  
Average  $|\sigma_{\{y\}}|/\gamma^*H = 9.6764983601833054E-002$  %  
Average  $|\tau_{\{xy\}}|/\gamma^*H = 0.12857661106013588$  %  
Maximum  $s11_{\{\alpha\}} = 4.1899758526817488E-002$   
Maximum  $s12_{\{\alpha\}} = 4.5919924904025085E-002$   
Average  $s11_{\{\alpha\}} = 8.1922674941670756E-004$   
Average  $s12_{\{\alpha\}} = 6.5606842487543387E-004$   
Maximum  $s11_{\{\alpha\}}/(\gamma^*H) = 6.9832930878029149$  %  
Maximum  $s12_{\{\alpha\}}/(\gamma^*H) = 7.6533208173375140$  %  
Average  $s11_{\{\alpha\}}/(\gamma^*H) = 0.13653779156945128$  %  
Average  $s12_{\{\alpha\}}/(\gamma^*H) = 0.10934473747923898$  %  
Maximum  $s22_{\{\alpha\}} = 6.4462217852992234$   
\*\*\*\*\*

Solution of 7-th step excavation starts  
Fitting coefficient  $d_{\{k\}}$  of 7-th step, may take a bit of time, please wait...  
Minimum module of  $d_{\{k\}}$  of 7-step excavation = 6.0228919011660416E-009  
Fitting coefficient  $I_{\{k\}}$  of 7-th step, may take a bit of time, please wait...  
Minimum module of  $I_{\{k\}}$  of 7-step excavation = 7.0522280994641361E-007  
Resultant of 7-th step excavation = (-4.14040369399940485E-008, -2.0770037757538731)

Excavation step = 7 , Iteration reps = 33  
 $\kappa A_{\{-1\}} + B_{\{-1\}} = (-2.31610571514847749E-023, -4.44089209850062616E-016)$   
 $(A_{\{-1\}} - B_{\{-1\}}) - I_{\{-1\}} = (6.61744490042422140E-024, -1.77635683940025046E-015)$

Ngerr1 = 570 of 1601  
Ngerr2 = 1040 of 1601  
Maximum  $|\sigma_{\{y\}}| = 2.5467276420010343E-003$   
Maximum  $|\tau_{\{xy\}}| = 1.0000727583154543E-002$   
Average  $|\sigma_{\{y\}}| = 2.7140222818783751E-004$   
Average  $|\tau_{\{xy\}}| = 7.6814767737753010E-004$   
Maximum  $|\sigma_{\{y\}}|/\gamma^*H = 0.42445460700017240$  %  
Maximum  $|\tau_{\{xy\}}|/\gamma^*H = 1.6667879305257574$  %  
Average  $|\sigma_{\{y\}}|/\gamma^*H = 4.5233704697972922E-002$  %  
Average  $|\tau_{\{xy\}}|/\gamma^*H = 0.12802461289625502$  %  
Maximum  $s11_{\{\alpha\}} = 0.16473914995131878$   
Maximum  $s12_{\{\alpha\}} = 0.13460658319725105$   
Average  $s11_{\{\alpha\}} = 2.9573889901340681E-003$   
Average  $s12_{\{\alpha\}} = 2.3975664245258943E-003$   
Maximum  $s11_{\{\alpha\}}/(\gamma^*H) = 27.456524991886468$  %  
Maximum  $s12_{\{\alpha\}}/(\gamma^*H) = 22.434430532875176$  %  
Average  $s11_{\{\alpha\}}/(\gamma^*H) = 0.49289816502234468$  %  
Average  $s12_{\{\alpha\}}/(\gamma^*H) = 0.39959440408764912$  %  
Maximum  $s22_{\{\alpha\}} = 6.0523564933791558$   
\*\*\*\*\*

Solution of 8-th step excavation starts  
Fitting coefficient  $d_{\{k\}}$  of 8-th step, may take a bit of time, please wait...  
Minimum module of  $d_{\{k\}}$  of 8-step excavation = 9.8092744265968770E-007  
Fitting coefficient  $I_{\{k\}}$  of 8-th step, may take a bit of time, please wait...  
Minimum module of  $I_{\{k\}}$  of 8-step excavation = 8.0778523071444792E-005

```

Resultant of 8-th step excavation =          (1.18320280740822264E-004, -
2.3173474376537877)
Excavation step =          8 , Iteration reps =          35
kappa*A_{-1} + B_{-1} =          (-5.85604698413733082E-017, 8.88178419700125232E-016)
(A_{-1} - B_{-1})-I_{-1} =          (-7.21401020517542513E-017, -1.33226762955018785E-
015)
Ngerr1 =          571 of          1601
Ngerr2 =          1030 of          1601
Maximum |sigma_{y}| =          2.2505174616023471E-003
Maximum |tau_{xy}| =          9.1174092520941441E-003
Average |sigma_{y}| =          2.2527933173830981E-004
Average |tau_{xy}| =          7.3778143560662268E-004
Maximum |sigma_{y}|/gamma*H =          0.37508624360039122          %
Maximum |tau_{xy}|/gamma*H =          1.5195682086823574          %
Average |sigma_{y}|/gamma*H =          3.7546555289718300E-002          %
Average |tau_{xy}|/gamma*H =          0.12296357260110380          %
Maximum s11_{alpha} =          0.17476425734252007
Maximum s12_{alpha} =          0.13197116055994132
Average s11_{alpha} =          2.1013664002928435E-003
Average s12_{alpha} =          1.6755765962600459E-003
Maximum s11_{alpha}/(gamma*H) =          29.127376223753348          %
Maximum s12_{alpha}/(gamma*H) =          21.995193426656886          %
Average s11_{alpha}/(gamma*H) =          0.35022773338214064          %
Average s12_{alpha}/(gamma*H) =          0.27926276604334099          %
Maximum s22_{alpha} =          8.1006709561846648
*****
Solution of 9-th step excavation starts
Fitting coefficient d_{k} of 9-th step, may take a bit of time, please wait...
Minimum module of d_{k} of 9-step excavation =          2.2998830876787443E-008
Fitting coefficient I_{k} of 9-th step, may take a bit of time, please wait...
Minimum module of I_{k} of 9-step excavation =          1.7354492987770832E-007
Resultant of 9-th step excavation =          (-2.20961627853342238E-008, -
2.5571571664781905)
Excavation step =          9 , Iteration reps =          35
kappa*A_{-1} + B_{-1} =          (6.61744490042422140E-024, -4.44089209850062616E-016)
(A_{-1} - B_{-1})-I_{-1} =          (1.65436122510605535E-023, 8.88178419700125232E-
016)
Ngerr1 =          580 of          1601
Ngerr2 =          1032 of          1601
Maximum |sigma_{y}| =          1.6368845765946105E-003
Maximum |tau_{xy}| =          8.5056148522542393E-003
Average |sigma_{y}| =          1.8685427205552738E-004
Average |tau_{xy}| =          6.8328596664492096E-004
Maximum |sigma_{y}|/gamma*H =          0.27281409609910179          %
Maximum |tau_{xy}|/gamma*H =          1.4176024753757066          %
Average |sigma_{y}|/gamma*H =          3.1142378675921231E-002          %
Average |tau_{xy}|/gamma*H =          0.11388099444082016          %
Maximum s11_{alpha} =          5.7020223184934160E-002
Maximum s12_{alpha} =          6.8210727148577441E-002
Average s11_{alpha} =          1.0706347328188917E-003
Average s12_{alpha} =          8.6605694952736454E-004
Maximum s11_{alpha}/(gamma*H) =          9.5033705308223606          %
Maximum s12_{alpha}/(gamma*H) =          11.368454524762907          %
Average s11_{alpha}/(gamma*H) =          0.17843912213648197          %
Average s12_{alpha}/(gamma*H) =          0.14434282492122744          %
Maximum s22_{alpha} =          8.0976828683696986
Time for solution =          261 seconds
*****
Congratulations! Solution complete!
*****
*****gnuplot starts*****
*****figure 4a*****
Rc files read:
NONE

```

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'cavity-boundary.log'

\*\*\*\*\*figure 5\*\*\*\*\*

Rc files read:

NONE

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'mapping-zeta-plane.log'

\*\*\*\*\*figure 6\*\*\*\*\*

Rc files read:

NONE

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'mapping-w-plane.log'

\*\*\*\*\*figure 7\*\*\*\*\*

Rc files read:

NONE

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'mapping-z-plane.log'

\*\*\*\*\*figure 8\*\*\*\*\*

Rc files read:

NONE

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'boundary-condition.log'

\*\*\*\*\*figure 10\*\*\*\*\*

Rc files read:

NONE

Latexmk: Run number 1 of rule 'pdflatex'  
This is pdfTeX, Version 3.141592653-2.6-1.40.26 (TeX Live 2024) (preloaded  
format=pdflatex)  
restricted \write18 enabled.  
entering extended mode  
Latexmk: Getting log file 'mechanical-comparison.log'

end\_time: 2025-05-31 06:30:51

consuming\_time: 387s