欢迎第一次加入的伙伴(开会时请从下一页开始展示)

- 开放编辑，直接点击 request for edit 然后在东亚时区群里at吴伟
- 如果没有找到自己的内容分类，可以添加1-2页在最开始或中间
- 欢迎在开始的前5分钟进行自我介绍
- 日常八卦在东亚时区RISC-V双周同步微信群中，欢迎加入

东亚时区RISC-V双周会

2022年08月18日·第041次

https://github.com/cnrv/RISCV-East-Asia-Biweekly-Sync

Host: 李威威

Organizer: PLCT Lab wuwei2016@iscas.ac.cn

会议议程（15:00 - 16:00）

- 自我介绍、等待参会者接入、非技术话题八卦（5分钟）
- RVI 的更新和八卦（基本上跟东亚双周会群内消息同步）
- Unratified Specs 的参考实现进展
- 东亚地区小伙伴的项目更新
- 自由讨论

RISC-V International 同步、全球开源社区八卦

- 第二届 RISC-V 中国峰会下周就正式开始了！
    - 部分T恤和观众礼品已经陆续寄出；第一批前1000名观众报名已经爆满；第二批昨天投放到 现在已经超过200+
- [RFC] Draft release roadmap for RVV v1.0 formal release
    - sifive 的 eop chen 发到了 gcc 社区
- RISC-V中国峰会倒计时，重磅看点独家披露！
    - https://mp.weixin.qq.com/s/vlcbFmVWfzBFPnBBDHesaQ
- [RISC-V] [software] Call for Chair/Vice-Chair Candidates for Performance Modeling SIG
    - https://github.com/riscv-admin/perf-modeling/blob/main/CHARTER.md
- The Security HC is pleased to announce that the TSC has approved the creation of the IOPMP Task Group.
- Linux 内核观察 - v5.19
    - https://www.bilibili.com/video/BV15N4y1V7kn
-

AOSP for RISC-V - 汪辰、陆旭凡

Android 13 Sources Released To AOSP: https://android-developers.googleblog.com/2022/08/android-13-is-in-aosp.html

RVI upstream PR list for riscv64-android-12.0.0_dev:

- remove.sdk_rv: https://github.com/riscv-android-src/platform-build/pull/4
- revert.mainline_system_x86: https://github.com/riscv-android-src/platform-build/pull/5
- add -mno-relax when building libc++: https://github.com/riscv-android-src/toolchain-llvm_android/pull/3

bionic unit test (on emulator) status update:

- Round issue for math lib: https://gitee.com/aosp-riscv/working-group/issues/I5BV63,
  - LLVM/compiler-rt PR: https://reviews.llvm.org/D128240 has been resolved
  - Submitted a new PR: Backport commits to support fe_getround and fe_raise_inexact in builtins: https://github.com/riscv-android-src/toolchain-llvm-project/pull/6, verified and found it is crashed due to aosp llvm-project build framework is too old and can not enable `__riscv_f`, which makes compiler-rt always use tonearest., continue fixing.
- Signal Stack unwinding issue: https://gitee.com/aosp-riscv/working-group/issues/I5D6NY, rootcaused and found it is due to current LLVM/libunwind has not support signal frame unwinding. Reported to RVI upstream and T-head has worked out a patch, will release it later.
- "-nan" sprintf issue: https://gitee.com/aosp-riscv/working-group/issues/I5CKA4
  - Submitted a GNU toolchain issue: https://github.com/riscv-collab/riscv-gnu-toolchain/issues/1092, waiting for feedback
- sys_ptrace: will start to look into soon

Articles update:

- Stack Unwinding with CFI: https://zhuanlan.zhihu.com/p/546207071
- GCC cross toolchain for building RISC-V from source: https://zhuanlan.zhihu.com/p/544827596

RISC-V GCC进展

积极参与RISCV-GNU-Toolchain仓库的维护更新中

https://github.com/riscv-collab/riscv-gnu-toolchain/pull/1114

https://lists.riscv.org/g/sig-toolchains/topic/call_for

对扩展显示接口进行了讨论，正在实现初步的打印扩展模块

https://github.com/riscv-non-isa/riscv-toolchain-conventions/issues/24

钟居哲提交RVV拆分的patch到upstream,目前已被合并

https://gcc.gnu.org/pipermail/gcc-patches/2022-August/599858.html

通过回滚测试解决了riscv-gnu-toolchain仓库中发现的zbs在RV32环境下构建失败的问题，等待作者review中

https://github.com/riscv-collab/riscv-gnu-toolchain/issues/1105

https://gcc.gnu.org/bugzilla/show_bug.cgi?id=106586

RISCV-GNU-Toolchain双周会(8月11日)slides链接——

https://docs.google.com/presentation/d/1QHaTuNLeSmIr2WeXpD_ZmHvAuziLYT0OWQ7jsoKUaTs/edit#slide=id.g1453f0211ed_0_7

Clang/LLVM 进展 (PLCT)

- Gollvm
  - 目前还有两个错误，都是和x86重复的错误 见https://github.com/plctlab/gollvm/issues/16
  - 后续需要添加arch信息使gollvm不仅仅是使用ABI类型进行架构的区分。
- LLVM Upstream
  1. Merged. Zca扩展的mc实现 https://reviews.llvm.org/D130141
  2. Merged. 标量优化 Fold sub->add https://reviews.llvm.org/D131471
  3. Merged. 标量优化 针对minsize的div 优化 https://reviews.llvm.org/D130543
  4. Merged. Clang 在实例化templates中有type trait的话，参数不够会crash https://reviews.llvm.org/D131423
  5. Merged. Clang 在TryPrintAsStringLiteral中添加类型检查，解决clang crash #57013 https://reviews.llvm.org/D131466
  6. Merged. Clang void返回的函数不应该有-Wcomma诊断信息 https://reviews.llvm.org/D131892
  7. Merged. Clang 现在可以对编译时常量的字符串作格式化字符串检查, #55805 https://reviews.llvm.org/D130906
  8. Merged. Clang while循环在控制流外时给出更好的错误提示 #33462 https://reviews.llvm.org/D129573
  9. Merged. LLDB 在lldb中加入对riscv寄存器的读写支持 https://reviews.llvm.org/D130342
  10. Merged. LLDB 在lldb中加入riscv的trap code以支持断点 https://reviews.llvm.org/D131566
  11. Merged. LLDB 修复在windows平台上的编译错误 https://reviews.llvm.org/D131945
  12. Merged. LLDB 修复在单步调试时可能触发的空指针异常 https://reviews.llvm.org/D131945
  13. Merged. LLDB 处理错误并加入了一些调试信息 https://reviews.llvm.org/D131946
  14. Merged. LLDB 实现了一个模拟器来支持riscv的单步调试 https://reviews.llvm.org/D131759

Clang / LLVM 社区的更新（廖春玉、陆旭凡）

1. D131980 [Passes] Don't run tail-call-elim in -O1
2. D131962 [RegisterInfoEmitter] Generate isConstantPhysReg(). NFCI
3. D131958 Add all constant physical registers to callee preserved masks
4. D131508 [RISCV] Enable fixed length vectorization
5. D130479 [ORC_RT][COFF] Initial platform support for COFF/x86_64.

QEMU/Spike/Sail/ACT进展 (PLCT)

- Spike
  - Zfinx: https://github.com/riscv-software-src/riscv-isa-sim/pull/831
  - Smstateen:https://github.com/riscv-software-src/riscv-isa-sim/pull/1035
  - Sscofpmf:https://github.com/riscv-software-src/riscv-isa-sim/pull/1036
  - csr和权限检查相关的修复
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1040
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1041
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1042
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1059
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1061
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1066
  - Vector优化
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1065
    - https://github.com/riscv-software-src/riscv-isa-sim/pull/1069
- QEMU
  - csr和权限检查相关的修复
    - https://lists.gnu.org/archive/html/qemu-riscv/2022-07/msg00137.html
    - https://lists.gnu.org/archive/html/qemu-riscv/2022-08/msg00030.html
    - https://lists.gnu.org/archive/html/qemu-riscv/2022-08/msg00236.html
  - Vector优化
    - https://lists.gnu.org/archive/html/qemu-riscv/2022-08/msg00237.html

GEM5进展 (PLCT)

- V拓展开发进展
  - 新增指令
    - 定点饱和运算(vsadd.vv等)
    - 整数拓宽(vzext_vf2等)
    - 整数收缩位移指令(vnsrl.wv等)
    - 整数平均运算指令(vaaddu等)
    - 浮点转换指令(vfcvt.*, vnfcvt.*, vwfcvt.*)
    - 浮点单操作数指令(vfsqrt.v, vfrec7.v等)
    - gather指令(vrgather.* vrgatherei16.vv)
    - 位运算指令(vmand.mm等)
  - 为所有已实现的指令添加vtu/vmu支持
  - 修复vle*.v与vse*.指令uop拆分错误的问题
  - 还剩41条指令未实现

V8 for RISC-V 更新（邱吉、陆亚涵）

V8 for RV32GC已经合并至上游

- 3807124: Reland "[riscv32] Add RISCV32 backend" | https://chromium-review.googlesource.com/c/v8/v8/+/3807124

V8 其他常规更新

- 3811139: [riscv64] disable fp multiply and accumulate instructions | https://chromium-review.googlesource.com/c/v8/v8/+/3811139
- 3813425: [riscv] Fix native build | https://chromium-review.googlesource.com/c/v8/v8/+/3813425
- 3815774: [riscv] Fix asm atomic op test case failed | https://chromium-review.googlesource.com/c/v8/v8/+/3815774
- 3815778: [riscv] Fix wasm/externref-globals-liftoff failed | https://chromium-review.googlesource.com/c/v8/v8/+/3815778
- 3819043: [riscv][ext-code-space] Add InterpreterEntryTrampolineForProfiling builtin | https://chromium-review.googlesource.com/c/v8/v8/+/3819043
- 3823859: [riscv][masm][cleanup] Refactor call related assembler options | https://chromium-review.googlesource.com/c/v8/v8/+/3823859
- 3824663: [riscv32] fix wasm-spec-test/i64.js | https://chromium-review.googlesource.com/c/v8/v8/+/3824663
- 3826517: [riscv][masm] Move tiering logic to macro-assembler | https://chromium-review.googlesource.com/c/v8/v8/+/3826517
- 3830281: [riscv]Fix temporary register reuse | https://chromium-review.googlesource.com/c/v8/v8/+/3830281

OpenJDK for RISC-V 更新（RV64及upstream）杨飞

- Merged jdk-mainline PRs:
- -- https://github.com/openjdk/jdk/pull/9766 (8291952: riscv: Remove PRAGMA_NONNULL_IGNORED)
- -- https://github.com/openjdk/jdk/pull/9872 (8292338: aarch64: Use cbnz instruction in gen_continuation_enter when possible)
-
- Reviewed jdk-mainline PRs:
- -- https://github.com/openjdk/jdk/pull/9770 (8291893: riscv: remove fence.i used in user space)
- -- https://github.com/openjdk/jdk/pull/9763 (8291947: riscv: fail to build after JDK-8290840)
-
- Sponsored jdk-mainline PRs:
- -- https://github.com/openjdk/jdk/pull/9821 (8292187: aarch64: Remove duplicate header files)
-
- Loom RV64 port commits (Still need GC-related changes before we can start debugging):
- -- https://github.com/RealFYang/jdk/commit/48b13a13f19b38ba70e8e61c3739bdc659e7776c (riscv: Implement TemplateInterpreterGenerator::generate_Continuation_doYield_entry)
- -- https://github.com/RealFYang/jdk/commit/f19e4ea5c3e4345e0f074c0d538ccbe1d5b2e956 (riscv: Implement gen_continuation_enter)
- -- https://github.com/RealFYang/jdk/commit/e10bb9ecde9471950ae5d2c407474115ee71407f (riscv: Implement continuation_enter_setup, fill_continuation_entry and continuation_enter_cleanup)
- -- https://github.com/RealFYang/jdk/commit/dc3d4c991d04f5c90fdada6c7b19b66477c3335e (Remove check_emit_size parameter from MacroAssembler::trampoline_call)
- -- https://github.com/RealFYang/jdk/commit/f27df4a679e9298c1349d3e4a0a016fb4aea9bfd (Add new parameter check_emit_size for MacroAssembler::trampoline_call)
- -- https://github.com/RealFYang/jdk/commit/d903bbc277f6f7f8f76f01acaa95a41c0c653a2c (Implement NativePostCallNop and NativeDeoptInstruction for riscv)
- -- https://github.com/RealFYang/jdk/commit/01f4bc1e0f3c019eb0e2e48aedde5f0fa1a7fbd0 (Implement SmallRegisterMap for riscv)
- -- https://github.com/RealFYang/jdk/commit/f19f79ef813e46fff809ab5b81ee592e4fde3293 (Implement stackChunkOopDesc::relativize_frame_pd and stackChunkOopDesc::derelativize_frame_pd for riscv)
- -- https://github.com/RealFYang/jdk/commit/8a615c8bd45102689d5a0a471aef18c12f1625a3 (Implement LIRGenerator::do_continuation_doYield for riscv)
- -- https://github.com/RealFYang/jdk/commit/5d2fe824e3f5c09bff940d67deef709716cb0d03 (Small refactoring for AbstractInterpreter::layout_activation)

OpenJDK for RISC-V 更新（RV32/PLCT 史宁宁）

1、clean the code in sharedRuntime_riscv32.cpp

https://github.com/openjdk-riscv/jdk11u/pull/466

2、Fix the java/c-calling-convention

https://github.com/openjdk-riscv/jdk11u/pull/467

3、Add T_LONG for save/restore_native_result

https://github.com/openjdk-riscv/jdk11u/pull/468

4、rewrite the long_move() https://github.com/openjdk-riscv/jdk11u/pull/469

5、Update the T_DOUBLE code in sharedruntime

https://github.com/openjdk-riscv/jdk11u/pull/470

6、Fix the bug of regname https://github.com/openjdk-riscv/jdk11u/pull/471

7、change the relationship between j_rargx and c_rargx https://github.com/openjdk-riscv/jdk11u/pull/472

8、Fix the instructions offset in vtableStubs_riscv32.cpp

https://github.com/openjdk-riscv/jdk11u/pull/473

openEuler RISC-V

- 移植进度：
  - 核心包：4130 / 4239 97.10%
  - 扩展包：2355 / 4269 55.17%
  - 三方包：未开始
- oerv OBS 构建:
  - 22.09工程修包：4051/4236 116failed
  - Factory:RISC-V:KDE ：+173包 160/173
- PR:
  - 中间仓：+21
    - https://github.com/isrc-cas/tarsier-oerv/blob/main/biweekly/2022-07-28.md
    - https://github.com/isrc-cas/tarsier-oerv/blob/main/biweekly/2022-08-11.md
  - texlive、R系列包提交管理：240个
    详见:https://docs.qq.com/sheet/DZFpWc3NicUtNSXln?tab=BB08J2
  - oe/上游仓库新增PR：36个
    详见:https://docs.qq.com/sheet/DUFhSa3pRRUdveXVj?tab=BB08J2
- porting
  - chromium、KDE、LibreOffice、OpenCV
  - openEuler:22.03修包: eclipse、tensorflow
  - 升级: python 3.9.9 to 3.10、clang12 to 13/14、rust 1.53 to 1.58/1.60/1.62

Gentoo for RISC-V 的情况更新（Gentoo小队）

- A total of 65 keywording commits: https://whale.plctlab.org/riscv/RISC-V-双周会/20220818/commits.txt
- media-rv/kodi: can works fine on riscv after an atomic issue fixed
  - https://github.com/xbmc/xbmc/pull/21743
- dev-util/bcc-0.25 released, support RISC-V now

Arch Linux RISC-V（东东）

1. 移植进度

   [extra] 2606 / 3036 (85.83%)

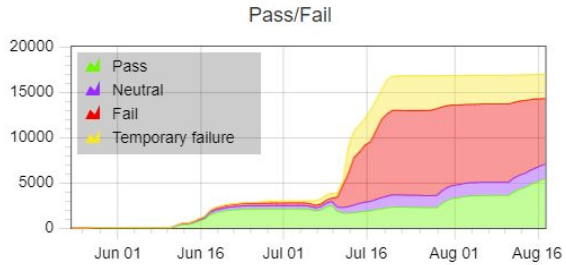
   [community] 7719 / 9296 (83.03%)
2. Archriscv-packages merged 62 PR.
3. updpkg: rust 1.63.0

Fedora for RISC-V（傅炜）

- SRPM打包编译进度
  - [fc36 external repo] https://openkoji.iscas.ac.cn/repos/
  - [rawhide] [On Going, rebuilding latest toolchain]
- 以 server 和 desktop 的功能包为目标:
  - Podman works well, need to make image by buildah
  - Libreoffice has been built successfully with OpenJDK17
  - Chromium [patch porting is done by intern, building now]
  - firefox【waiting for Rust 1.62.1-1 rebuild 】
- 软件版本:
  - gcc-12.1.1-3.1 / Glibc 2.36 [on going] / Binutils 2.39[rawhide][DONE]
  - go-1.18.3 → 1.19.1[rawhide] [need document]
  - Python 3.10.4 → 3.11[rawhide] [need document]
  - Perl 5.34.2→ 5.36.0-490[rawhide][need document]
  - LLVM/Clang 14.0.0-1→ 14.0.5-1[rawhide][need document]
  - Rust 1.61-2 [need qemu fix from Felix]--> Rust 1.62.1-1[rawhide] [need document]
  - QT-5.15.3 and QT-6
  - OpenJDK17 / OpenJDK18 [rawhide]
  - OpenJDK17 with JIT [DONE, patch porting is done by intern][need document]
- Images:
  - QEMU/D1/Icicle/Unmatched Images

Debian for RISC-V I（于波）

- PLCT supports Debian riscv64 buildd machines
  Rv-plct-0{[1-8]}
- Debian buildd status(2022/08/17 22:00)
  Auto-Not-For-Us : 424 BD-Uninstallable: 364 Build-Attempted 215 Failed: 138
  Installed: 15116
- Debci Status



Debian for RISC-V II

- Debian riscv64 porting:
  1. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1015787 [zycore-c patch]
  2. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1015856 [rush update]
  3. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1015900 [xir patch]
  4. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1015924 [pvm patch]
  5. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016001 [rust-capstone patch]
  6. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016024 [deepin-boot-maker done]
  7. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016097 [khtml patch]
  8. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1014338#10 [openlibm patch]
  9. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016373 [deviceinfo patch]
  10. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016469 [qemu-web-desktop patch]
  11. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016581 [kio close]
  12. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016643 [ethflux done]
  13. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016932 [slinkwatch done]
  14. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016957 [kbd-chooser patch]
  15. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1016999 [libgdiplus patch]
  16. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1017020 [moarvm patch]
  17. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1017037 [princeprocessor patch]
  18. https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1017371 [kgb patch]

FW相关更新（王翔）

- opensbi
  - 异常重定位到HS-Mode时设置GVA比特位
  - 修复模拟FENCE.TSO时mepc未加4的BUG
  - 为C9xx添加PMU扩展
  - Cadence UART驱动更新，主要添加初始化时除零的检测
  - kconfig更新并合并

RISCV性能跟踪小队 - 陈小欧、陈逸轩

- **V8 on unmatched**

  Running benchmarks locally

  Sunspider:

```
3d-cube-sunspider,165.9,0.86,99
3d-morph-sunspider,115.8,1.28,99
3d-raytrace-sunspider,197.1,1.40,99
access-binary-trees-sunspider,42.8,0.60,99
access-fannkuch-sunspider,135.5,1.49,99
access-nbody-sunspider,83.5,1.41,99
access-nsieve-sunspider,62.3,7.46,99
bitops-3bit-bits-in-byte-sunspider,21.4,0.73,99
bitops-bits-in-byte-sunspider,27.6,0.61,99
bitops-bitwise-and-sunspider,21.5,0.50,99
bitops-nsieve-bits-sunspider,87.4,0.96,99
controlflow-recursive-sunspider,35.4,0.85,99
crypto-aes-sunspider,112.9,1.56,99
crypto-md5-sunspider,85.3,1.27,99
crypto-sha1-sunspider,86.6,2.02,99
date-format-tofte-sunspider,262.6,2.87,99
date-format-xparb-sunspider,155.5,1.83,99
math-cordic-sunspider,63.3,0.84,99
math-partial-sums-sunspider,262.5,3.47,99
math-spectral-norm-sunspider,34.6,0.62,99
regexp-dna-sunspider,905.7,1.56,99
string-base64-sunspider,128.5,1.67,99
string-fasta-sunspider,137.4,2.20,99
string-tagcloud-sunspider,285.1,2.64,99
string-unpack-code-sunspider,286.8,2.70,99
string-validate-input-sunspider,135.3,2.20,99
SunSpider,3938.4,45.61,99

"_results/master_sunspider" 128L, 1841B
```

  Octane:

```
Richards,1755.1,69.43,9
DeltaBlue,3093.0,95.15,9
Crypto,3425.3,26.38,9
RayTrace,1830.9,42.23,9
EarleyBoyer,1784.8,32.17,9
RegExp,256.2,7.01,9
Splay,1066.0,290.76,9
SplayLatency,2062.0,1204.40,9
NavierStokes,2392.0,15.67,9
PdfJS,1516.3,67.18,9
Mandreel,1707.1,41.53,9
MandreelLatency,1374.7,75.63,9
Gameboy,2113.0,98.89,9
CodeLoad,2506.1,132.31,9
Box2D,1344.4,42.38,9
zlib,5111.0,40.84,9
Typescript,1999.8,91.58,9
Octane,1760.6,136.66,9
```

  Kraken:

```
ai-astar-orig,2347.7,64.45,79
audio-beat-detection-orig,1163.4,23.52,79
audio-dft-orig,2804.5,43.57,79
audio-fft-orig,780.5,9.04,79
audio-oscillator-orig,1058.1,116.52,79
imaging-gaussian-blur-orig,2161.6,53.54,79
imaging-darkroom-orig,2125.9,12.42,79
imaging-desaturate-orig,2731.3,12.96,79
json-parse-financial-orig,420.5,11.63,79
json-stringify-tinderbox-orig,381.5,33.43,79
stanford-crypto-aes-orig,1038.3,12.38,79
stanford-crypto-ccm-orig,989.6,28.28,79
stanford-crypto-pbkdf2-orig,1190.3,13.12,79
stanford-crypto-sha256-iterative-orig,417.5,4.02,79
Kraken,19610.6,438.88,79
```

香山开源RISC-V处理器 - ICT / PCL

- 过去几周持续针对南湖架构做进一步的时序优化
  - 重点通过逻辑优化和复制寄存器解决各模块 Register High Fanout 的问题
  - 优化 PR 阶段各个模块的摆放
- 启动南湖 V2 产品化改造项目的验证工作
  - 筹集验证团队，以工业级标准做模块级验证
  - 分组撰写验证文档 ing
- 昆明湖项目
  - 前端：探索并实现指令预取、路预测等功能，评估结果
  - 后端：优化浮点加法器，继续针对 V 扩展进行设计探索
  - 访存/缓存：联合进行设计空间探索，撰写设计文档

MLIR RISC-V Vector (RVV) Dialect Proposal - 张洪滨

相关链接

- RFC Patch - https://reviews.llvm.org/D108536
- RFC Post - https://discourse.llvm.org/t/rfc-add-risc-v-vector-extension-rvv-dialect/4146/32
- MLIR + RVV 集成测试环境搭建文档 - https://gist.github.com/zhanghb97/ad44407e169de298911b8a4235e68497
- MLIR + RVV 环境搭建 - https://github.com/buddy-compiler/buddy-mlir/blob/main/thirdparty/build-rvv-env.sh
- MLIR + RVV 相关实验 - https://github.com/buddy-compiler/buddy-mlir/tree/main/examples/RVVExperiment

WIP

- Vector Config Operation Demo - https://github.com/buddy-compiler/buddy-mlir/blob/main/examples/RVVExperiment/rvv-vp-intrinsic.mlir#L47
- 测试 MLIR VP Intrinsic + Fixed Vector Type + RVV（不支持：vp.frem, vp.inttoptr, vp.ptrtoint, vp.reduce.fmul, vp.reduce.mul）- https://github.com/buddy-compiler/buddy-mlir/blob/main/examples/RVVExperiment/makefile#L210
- RISC-V + JIT 报错：lli: ~~Target has no JIT support~~（解决：D131617　感谢 @StephenFan）

  LLVM ERROR: Do not know how to scalarize the result of this operator! (VP Intrinsic + RVV + JIT)

面向 RISC-V 的 OpenCV 情况更新 - 韩柳彤

- **为 Universal Intrinsic 增加可变长向量指令的支持**

  Google Summer of Code 2022: Optimizing OpenCV Universal Intrinsic for RISC-V Vector

  PR：#22179 #22278 和 #22292 已经被合并

  - 修改了测试用例，使其适应于可变长架构
  - 增加了必要的 Universal Intrinsic 函数
  - 增加了兼容层
  - 修改了图像处理模块中的向量化循环，启用新的RVV后端

  ~~在特定情况下(未启用任何SIMD)会挂掉 OpenCV 主干分支~~ (修复: #22278 和 #22292)

  新的PR#22353增加了更多对 Universal Intrinsic 的支持，剩余的 Intrinsic 正在逐步实现

Chisel and Additional Technology / Sequencer

- github.com/chipsalliance/playground 进入Chips Alliance开始维护
- 李秦君
  - github.com/qinjun-li/v 完成 Vector Lane 的框架逻辑设计
  - 罗云千负责Review
- 杨砚祺
  - https://github.com/chipsalliance/rocket-chip/pull/3001 ICache 文档
- 叶泽文
  - RV32 下的RSA性能评估
- 程光辉
  - SRT 性能评估
- 古真
  - Serdes Phy TSMC 28nm prototyping
- 韩博阳
  - Serdes PCS(Digital)
- 郑鉉壬
  - TL USB(Digital)
- 张露承
  - https://github.com/chipsalliance/playground/pull/34 Fix playground for spike upstream
- 苑浩然 陈春昀 刘晓义 徐金焱 廖杰 咕了

Spidermonkey for RISC-V - 吴伟

- 过去两周没有新的进展
  - 重新加入了 PLCT Roadmap 2022 计划
  - 但是这次并没有重新放入到 LFX Mentorship（专业对口的太少了）
  - https://github.com/plctlab/gecko-dev-riscv/pull/3
- 欢迎感兴趣移植的小伙伴通过实习、兼职或全职形式加入
  - https://github.com/lazyparser/weloveinterns/blob/master/open-internships.md
  -

自由讨论 / AOB

- 各位工作生活都还顺利？