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%13:
%14 = sext i32 %6 to i64
%15 = icmp slt i64 %14, 32
%16 = select i1 %15, i64 %14, i64 32
%17 = sext i32 %3 to i64
%18 = icmp slt i64 %17, 8
%19 = select i1 %18, i64 %17, i64 8
%mul.i.i = shl i64 %10, 5
%mul3.i.i = shl i64 %11, 3
%cmp739.i = icmp sgt i32 %4, 0, !llvm.access.group !12
%wide.trip.count.i = zext i32 %4 to i64
%20 = icmp ugt i64 %16, 1
%umax = select i1 %20, i64 %16, i64 1
%21 = icmp ugt i64 %19, 1
%umax28 = select i1 %21, i64 %19, i64 1
br i1 %cmp739.i, label %preregion_for_entry.preregion_for_init.i.us.preheader,
... label %preregion_for_entry.preregion_for_init.i.us.preheader
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preregion_for_entry.preregion_for_init.i.us.preheader:
br label %preregion_for_entry.preregion_for_init.i.us

preregion_for_entry.preregion_for_init.i.us.preheader:
%22 = add nsw i64 %umax, -1
%23 = trunc i64 %11 to i32
%24 = shl i32 %23, %6
%25 = shl i32 %24, 3
%26 = zext i32 %25 to i64
%27 = shl i64 %10, 5
%28 = add i64 %27, %26
%29 = zext i32 %6 to i64
br label %preregion_for_entry.preregion_for_init.i

preregion_for_entry.preregion_for_init.i.us:
% local_id y.0.us = phi i64 [%41, %preregion_for_end.i.us.lcssa.us.us], [0, ...
... %preregion_for_entry.preregion_for_init.i.us.preheader]
%add6.i.i.us = add i64 % local_id y.0.us, %mul3.i.i, !llvm.access.group !12
%conv2.i.us = trunc i64 %add6.i.i.us to i32, !llvm.access.group !12
%mul.i.us = mul nsw i32 %conv2.i.us, %6, !llvm.access.group !12
%mul9.i.us = mul nsw i32 %conv2.i.us, %4
%30 = sext i32 %mul9.i.us to i64
br label %preregion_for_entry.entry.i.us.us

preregion_for_entry.preregion_for_init.i:
% local_id y.0 = phi i64 [%73, %preregion_for_end.i], [0, ...
... %preregion_for_entry.preregion_for_init.i.preheader]
%42 = mul i64 % local_id y.0, %29
%43 = add i64 %28, %42
%44 = trunc i64 %43 to i32
%add6.i.i = add i64 % local_id y.0, %mul3.i.i, !llvm.access.group !12
%conv2.i = trunc i64 %add6.i.i to i32, !llvm.access.group !12
%mul.i = mul nsw i32 %conv2.i, %6, !llvm.access.group !12
%min.iters.check = icmp ult i64 %umax, 32
br i1 %min.iters.check, label %preregion_for_entry.entry.i.preheader, label ...
... %vector.scevcheck

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preregion_for_entry.entry.i.us.us:
% local_id x.0.us.us = phi i64 [0, %preregion_for_entry.preregion_for_init.i.us ...
...], [%33, %if.end.r_exit.i.loopexit.us.us]
%add1.i.i.us.us = add i64 % local_id x.0.us.us, %mul.i.i, !llvm.access.group ...
... !12
%conv.i.us.us = trunc i64 %add1.i.i.us.us to i32, !llvm.access.group !12
%add.i.us.us = add nsw i32 %mul.i.us, %conv.i.us.us, !llvm.access.group !12
%idxprom.i.us.us = sext i32 %add.i.us.us to i64, !llvm.access.group !12
%arrayidx.i.us.us = getelementptr inbounds float, float* %2, i64 ...
... %idxprom.i.us.us, !llvm.access.group !12
%31 = load float, float* %arrayidx.i.us.us, align 4, !tbaa !15, ...
... !llvm.access.group !12
%mul6.i.us.us = fmul float %31, %8, !llvm.access.group !12
store float %mul6.i.us.us, float* %arrayidx.i.us.us, align 4, !tbaa !15, ...
... !llvm.access.group !12
%sext.i.us.us = shl i64 %add1.i.i.us.us, 32, !llvm.access.group !12
%32 = ashr exact i64 %sext.i.us.us, 32, !llvm.access.group !12
br label %for.body.i.us.us, !llvm.access.group !12

for.body.i.us.us:
%indvars.iv.next.i2.us.us = phi i64 [%indvars.iv.next.i.us.us, ...
... %for.body.i.us.us], [0, %preregion_for_entry.entry.i.us.us]
%34 = phi float [%40, %for.body.i.us.us], [%mul6.i.us.us, ...
... %preregion_for_entry.entry.i.us.us]
%35 = add nsw i64 %indvars.iv.next.i2.us.us, %30, !llvm.access.group !12
%arrayidx12.i.us.us = getelementptr inbounds float, float* %0, i64 %35, ...
... !llvm.access.group !12
%36 = load float, float* %arrayidx12.i.us.us, align 4, !tbaa !15, ...
... !llvm.access.group !12
%37 = mul nsw i64 %indvars.iv.next.i2.us.us, %14, !llvm.access.group !12
%38 = add nsw i64 %37, %32, !llvm.access.group !12
%arrayidx16.i.us.us = getelementptr inbounds float, float* %1, i64 %38, ...
... !llvm.access.group !12
%39 = load float, float* %arrayidx16.i.us.us, align 4, !tbaa !15, ...
... !llvm.access.group !12
%40 = tail call float @llvm.fmuladd.f32(float %36, float %39, float %34) #3, ...
... !llvm.access.group !12
store float %40, float* %arrayidx.i.us.us, align 4, !tbaa !15, ...
... !llvm.access.group !12
%indvars.iv.next.i.us.us = add nuw nsw i64 %indvars.iv.next.i2.us.us, 1, ...
... !llvm.access.group !12
%exitcond.not.i.us.us = icmp eq i64 %indvars.iv.next.i.us.us, ...
... %wide.trip.count.i, !llvm.access.group !12
br i1 %exitcond.not.i.us.us, label %if.end.r_exit.i.loopexit.us.us, label ...
... %for.body.i.us.us, !llvm.loop !21, !llvm.access.group !12

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if end_r_exit.i.loopexit.us.us:
%33 = add nuw i64 % local_id x.0.us.us, 1
%exitcond.not = icmp eq i64 %33, %umax
br i1 %exitcond.not, label %preregion_for_end.i.us.lcssa.us.us, label ...
... %preregion_for_entry.entry.i.us.us, !llvm.loop !19

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preregion_for_end.i.us.lcssa.us.us:
%41 = add nuw i64 % local_id y.0.us, 1
%exitcond29.not = icmp eq i64 %41, %umax28
br i1 %exitcond29.not, label %mm2_kernel2.exit.loopexit, label ...
... %preregion_for_entry.preregion_for_init.i.us, !llvm.loop !23

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preregion_for_entry.entry.i.preheader:
% local_id x.0.ph = phi i64 [0, %vector.scevcheck], [0, ...
... %preregion_for_entry.preregion_for_init.i], [%n.vec, %middle.block]
br label %preregion_for_entry.entry.i

preregion_for_entry.entry.i:
% local_id x.0 = phi i64 [%72, %preregion_for_entry.entry.i], [...
... % local_id x.0.ph, %preregion_for_entry.entry.i.preheader]
%add1.i.i = add i64 % local_id x.0, %mul.i.i, !llvm.access.group !12
%conv.i = trunc i64 %add1.i.i to i32, !llvm.access.group !12
%add.i = add nsw i32 %mul.i, %conv.i, !llvm.access.group !12
%idxprom.i = sext i32 %add.i to i64, !llvm.access.group !12
%arrayidx.i = getelementptr inbounds float, float* %2, i64 %idxprom.i, ...
... !llvm.access.group !12
%71 = load float, float* %arrayidx.i, align 4, !tbaa !15, !llvm.access.group ...
... !12
%mul6.i = fmul float %71, %8, !llvm.access.group !12
store float %mul6.i, float* %arrayidx.i, align 4, !tbaa !15, ...
... !llvm.access.group !12
%72 = add nuw i64 % local_id x.0, 1
%exitcond31.not = icmp eq i64 %72, %umax
br i1 %exitcond31.not, label %preregion_for_end.i.loopexit, label ...
... %preregion_for_entry.entry.i, !llvm.loop !27

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preregion_for_end.i.loopexit:
br label %preregion_for_end.i

preregion_for_end.i:
%73 = add nuw i64 % local_id y.0, 1
%exitcond33.not = icmp eq i64 %73, %umax28
br i1 %exitcond33.not, label %mm2_kernel2.exit.loopexit46, label ...
... %preregion_for_entry.preregion_for_init.i, !llvm.loop !23

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mm2_kernel2.exit.loopexit46:
br label %mm2_kernel2.exit

mm2_kernel2.exit:
ret void

CFG for '_pocl_kernel_mm2_kernel' function