An extra clarification on the last questions of Part 1 of your ISPC project:  
Implement the AVX manually by AVX intrinsics, compare it with the automatic implementation which is within the ISPC (SSE4), to see how much difference in performance can be identified between them. So there is no need to use ISPC to compile the avx intrinsics, GCC is enough.  
  
Normally you should do for avx sqrt exactly what you did for ispc, so you should be launching tasks. If we are to compare performances, we need to be very rigorous about implementing the avx and the ispc-sse4 in a similar way. Otherwise, the performance comparison makes no sense.