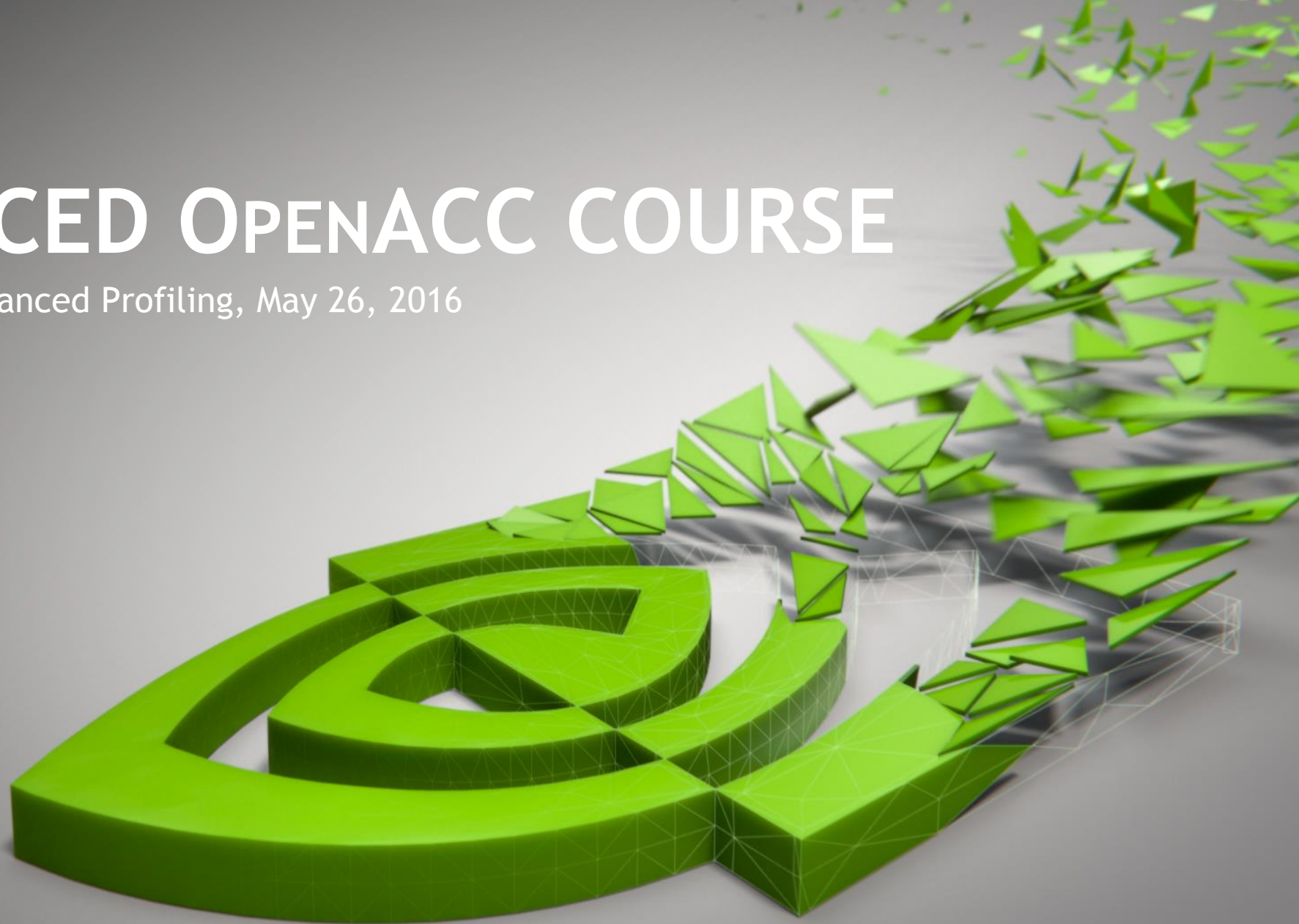


# ADVANCED OPENACC COURSE

Office Hour 1: Advanced Profiling, May 26, 2016



# Course Syllabus

May 19: Advanced Profiling of OpenACC Code

May 26: Office Hours

June 2: Advanced multi-GPU Programming with  
MPI and OpenACC

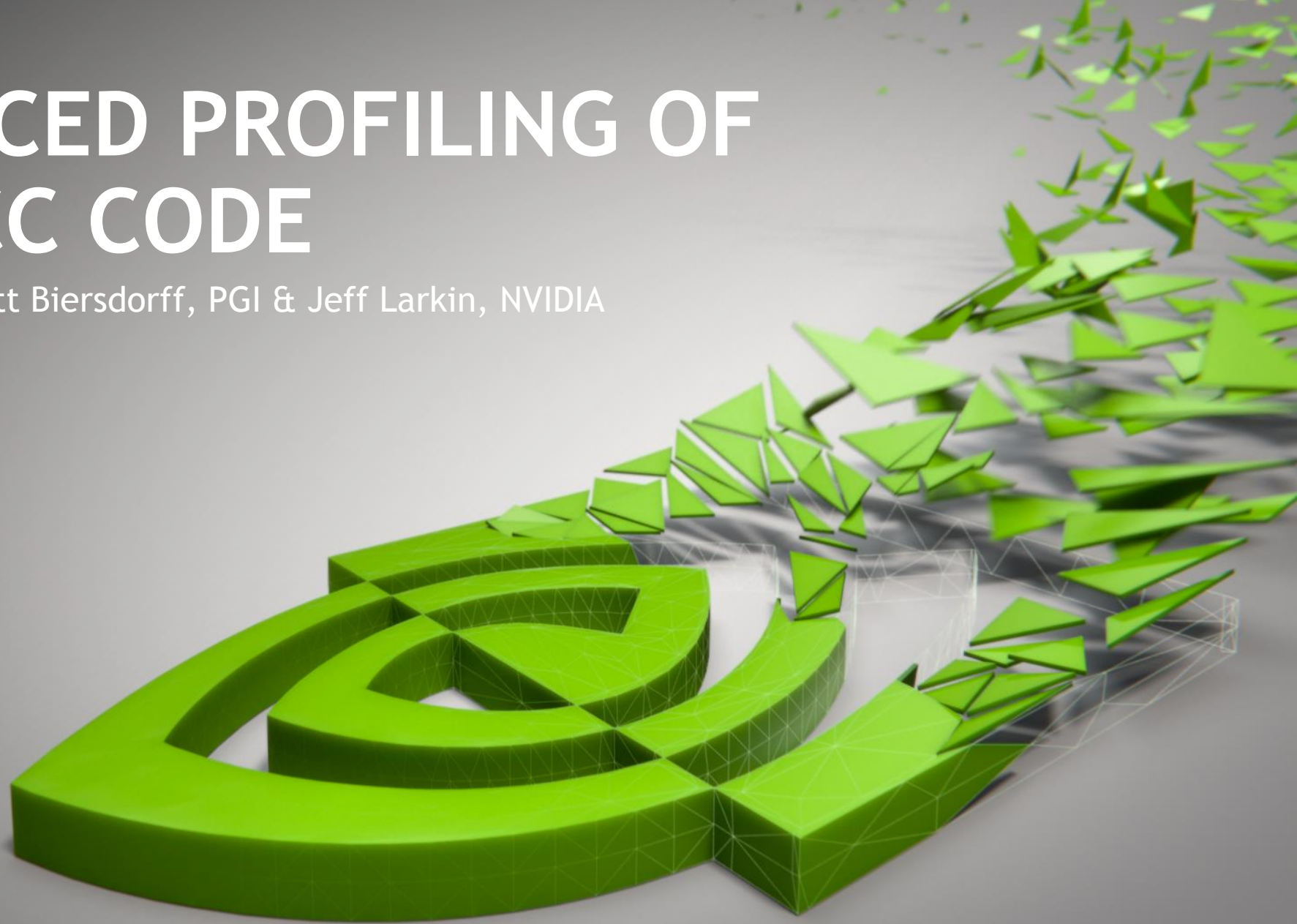
June 9: Office Hours

**Recordings:**

<https://developer.nvidia.com/openacc-advanced-course>

# ADVANCED PROFILING OF OPENACC CODE

Office Hour 1: Scott Biersdorff, PGI & Jeff Larkin, NVIDIA

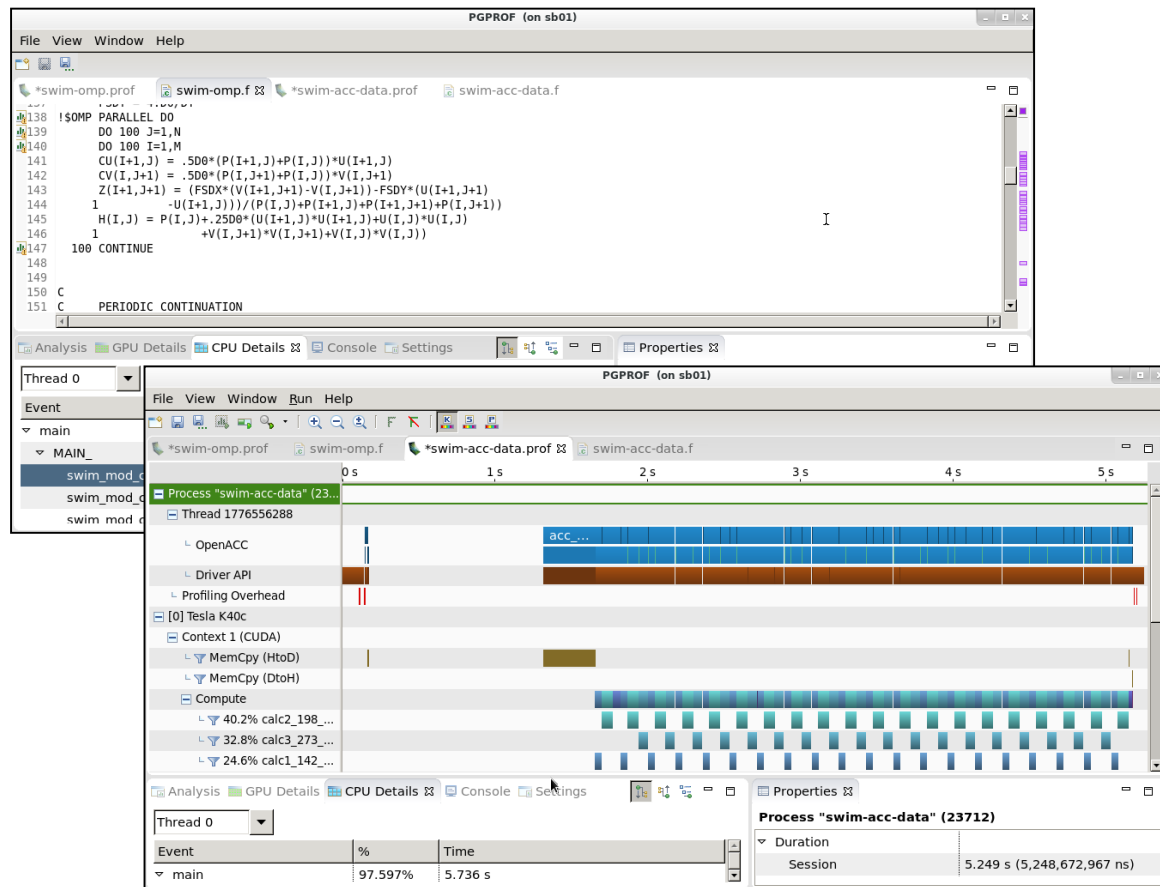


# QUESTIONS FROM LECTURE 1

1. Is there a way to use OpenACC for Python?
2. Are OpenACC, CUDA and libraries compatible?
3. Highly nonlinear problems can be extremely sensitive to order of operations. Does it for OpenACC? If so how does it address the issue?
4. What should I know about complex routine usage? Where nested functions call this function being marked by routine.
5. Is it possible to target GPU with some OpenACC pragmas, and multicore with others in the same program?

# PGPROF: OPENACC CPU AND GPU PROFILER

Available with the latest OpenACC Toolkit



- For 64-bit multicore processor-based systems with or without accelerators
- Supports thread-level OpenMP profiling
- Supports profiling OpenACC and CUDA Fortran codes on NVIDIA CUDA-enabled GPU accelerators
- Graphical and command-line user interfaces
- Function level (routine) and source code line level profiling
- Comprehensive built-in help facilities

# Homework

Kirchhoff Migration through Visual PGProf



# WHERE TO FIND HELP

- OpenACC Course Recordings - <https://developer.nvidia.com/openacc-courses>
- PGI Website - <http://www.pgroup.com/resources>
- OpenACC on StackOverflow - <http://stackoverflow.com/questions/tagged/openacc>
- OpenACC Toolkit - <http://developer.nvidia.com/openacc-toolkit>
- Parallel Forall Blog - <http://devblogs.nvidia.com/parallelforall/>
- GPU Technology Conference - <http://www.gputechconf.com/>
- OpenACC Website - <http://openacc.org/>

Questions? Email [openacc@nvidia.com](mailto:openacc@nvidia.com)

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