

# Scaling CUDA C++ Applications to Multiple Nodes (SCCAMN)

## ID SCCAMN Prix sur demande Durée 1 jour

#### **Pré-requis**

Intermediate experience writing CUDA C/C++ applications.

Suggested materials to satisfy the prerequisites:

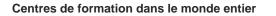
- Fundamentals of Accelerated Computing with CUDA C/C++
- Accelerating CUDA C++ Applications with Multiple GPUs
- Accelerating CUDA C++ Applications with Concurrent Streams
- Scaling Workloads Across Multiple GPUs with CUDA C++

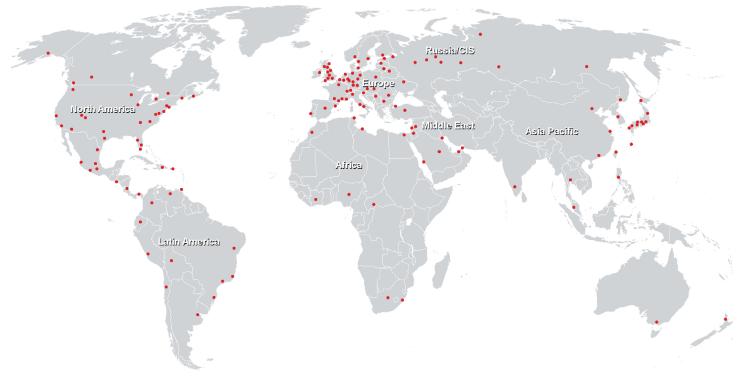
### **Objectifs**

By participating in this workshop, you'll:

- Learn several methods for writing multi-GPU CUDA C++ applications
- Use a variety of multi-GPU communication patterns and understand their tradeoffs
- Write portable, scalable CUDA code with the singleprogram multiple-data (SPMD) paradigm using CUDAaware MPI and NVSHMEM
- Improve multi-GPU SPMD code with NVSHMEM's symmetric memory model and its ability to perform GPUinitiated data transfers
- Get practice with common multi-GPU coding paradigms like domain decomposition and halo exchanges

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