

UE GPU Computing

C

Level Baccalaureate +5

ECTS 6 credits



European Credit Transfer and Accumulation System (ECTS) Exchange credits 6.0

Component UFR IM2AG (informatique, mathématiques et mathématiques appliquées)



Semester Automne

- > Teaching language(s): English
- > Open to exchange students: Yes
- > European Credit Transfer and Accumulation System (ECTS) Exchange credits: 6.0
- > Code d'export Apogée: GBX9AM49

Presentation

Description

In this course, we will introduce parallel programming paradigms to the students in the context of applied mathematics. The students will learn to identify the parallel pattern in numerical algorithm. The key components that the course will focus on are : efficiency, scalability, parallel pattern, comparison of parallel algorithms, operational intensity and emerging programming paradigm. Trough different lab assignments, the students will apply the concepts of efficient parallel programming using Graphic Processing Unit. In the final project, the students will have the possibility to parallelize one of their own numerical application developed in a previous course.

Course parts

Lectures	Lectures (CM)	18h
Practical work	Practical work (TP)	18h

Recommended prerequisites





C or C++, Compiling, Data structures, Architecture, Concurrency

Period : Semester 9

Useful info

Contacts

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Campus

> Grenoble - University campus

