



# SUMMER SCHOOLS 2017

Scientific Committee: D. VERWAERDE (CEA), B. SALHA (EDF), M. COSNARD (INRIA)

## COMPUTER SCIENCE

June 12 to June 16, 2017

**CODE TRANSFORMATION  
AND ANALYSIS  
USING CLANG AND LLVM**

## NUMERICAL ANALYSIS

July 3 to July 7, 2017

**DESIGN AND OPTIMIZATION  
UNDER UNCERTAINTY OF LARGE  
SCALE NUMERICAL MODELS**

### INTRODUCTION TO LLVM

*David CHISNALL (Univ. of Cambridge)*

### INTRODUCTORY LECTURES: BASICS OF VV&UQ

*Guillaume DAMBLIN (CEA)*

*Guillaume PERRIN (CEA)*

&

### BASICS OF OPTIMIZATION METHODS

*Jean-Yves LUCAS (EDF R&D)*

### CODE TRANSFORMATION AND ANALYSIS USING CLANG AND LLVM

*Hal FINKEL (Argonne National Lab.)*

### INTRODUCTION TO RANDOMIZED BLACK-BOX NUMERICAL OPTIMIZATION AND CMA-ES

*Anne AUGER (INRIA Saclay)*

*Dimo BROCKHOFF (INRIA Saclay)*

### GENERATION AND OPTIMIZATION OF PARALLEL CODE IN LLVM

*Tobias GROSSER (ETH Zurich)*

### BAYESIAN OPTIMIZATION

*Julien BECT (CentraleSupélec)*

### LECTURES ON CASE STUDIES

*CEA & EDF*

– Hands on session –

– Seminars: various conferences by international specialists –

Coordinator of the Computer Science Summer School

Sid TOUATI, Univ. Côte d'Azur

e-mail: <http://www-sop.inria.fr/members/Sid.Touati>

Coordinators of the Numerical analysis Summer School

Bertrand IOOSS, EDF - Guillaume PERRIN, CEA

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Website: [www-hpc.cea.fr/SummerSchools2017.htm](http://www-hpc.cea.fr/SummerSchools2017.htm)

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**Registration Deadline: May 26, 2017**

Summer schools are intended for researchers, engineers and PhD students.

They allow them to review the state of progress of the proposed subjects and to confront their experience.

The teaching is done in English. It is complemented by practical works, in small groups, hosted by assistants.

Summer Schools will take place at Université Pierre-et-Marie CURIE - Paris 75005 - FRANCE

Cost of the registration:

Computer Science school (5 days) or Numerical Analysis school (5 days)

Full rate: € 1200 - Universities and public research institutes: € 600 - PhD students: € 300