



**AUHR РИУЦ**  
Universidad de Cádiz  
Университет Кадиса

Vicerrectorado de Proyección  
Social, Cultural e Internacionales  
**Aula Universitaria Hispano-Rusa**  
c/Benito Pérez Galdós, s/n oficina 126  
11002 - Cádiz (España)  
Tel. +34 956015648 Fax. +34 956015895

[auhr@uca.es](mailto:auhr@uca.es)  
[www.auhr.es](http://www.auhr.es)  
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## COMPUTER MODELING AND SIMULATION

Duration: 20 hours

Number of students: 10

Language of instruction: English

Professors: Ph.D. Carlos Rioja Del Río, Ph.D. Guadalupe Ortiz Bellot

Program:

### 1. Parallel Programming

- a. Introduction to parallel programming
- b. Parallel programming models
- c. Analysis and design of parallel programming
- d. Real world case studies

### 2. Computer Simulation

- a. Simulation programming with OpenMP
- b. Simulation programming with OpenMPI
- c. Comparing the model and the simulation results

### 3. Programming simulations in Java

- a. Java simulation tools
- b. Java simulation implementation