

## NEUTRONICA 1

Duration: 4 days (28 hours)

Language: French - English

Participants: 08 – 15

Location: Paris, other location on request

Level: Advanced

Contact: [formation.reacteurs@framatome.com](mailto:formation.reacteurs@framatome.com)

### **You are:**

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A design engineer (design and safety) and codes programmer

### **Prerequisites:**

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A basic knowledge of neutronics concepts

### **During the training you will:**

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- Study methodologies used during design or safety studies

### **After the training, you will be able to:**

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- Explain the basic principles of neutronics
- Quote the key parameters of studies and their links
- Describe the design studies already done
- Participate to design studies
- Describe the safety studies already done
- Participate to safety study

### **Course strengths:**

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- Theoretical learning realized by experts and specialists of reactors neutronics
- Knowledge sharing

### **Program**

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- Basic physical phenomena in core physics
- Phenomenology and modelling in core physics
- Lattice code : APOLLO 2: Models and calculation schemes

- Lattice code : APOLLO 2: Industrial applications and validation
- Core simulation code SMART and ARTEMIS: Codes description
- Core simulation code SMART and ARTEMIS: types of industrial core calculations