



**Offer #2024-08025**

## **PhD Position F/M ANISO: Anisotropic Appearance Fabrication With High-Resolution and Spatially Varying Orientations**

**Contract type :** Fixed-term contract

**Level of qualifications required :** Graduate degree or equivalent

**Fonction :** PhD Position

### **Context**

The recruited person will work in the MFX team at the Inria Centre at Université de Lorraine.

The project is funded by the French National Research Agency (ANR).

### **Assignment**

#### **Assignments :**

The recruited person will have the unique opportunity to develop new digital and manufacturing technologies, working with cutting-edge tools to produce personalized and innovative anisotropic surface finishes.

The objective is to push state-of-the-art techniques for

- designing and visualizing anisotropic appearances and
- generating toolpaths from a user-specified design.

The deliverables are scientific articles describing the new techniques and open-source implementations.

#### **For a better knowledge of the proposed research subject :**

A state-of-the-art bibliography and scientific references are available at the following URLs:

- [https://xavierchermain.github.io/anr\\_aniso/](https://xavierchermain.github.io/anr_aniso/)
- <https://xavierchermain.github.io/publications/fdm-aa>

### **Main activities**

Main activities:

- Bibliography
- Experiment with new algorithms
- Implement state-of-the-art methods
- Write scientific articles

### **Skills**

The ideal candidate would possess a diverse set of aptitudes and expertise:

- Passion for Innovation
- Artistic Sensibility
- Technology Enthusiasm
- Interdisciplinary Curiosity
- Good English speaking and writing

Expertise:

- Computer Graphics
- Computational Geometry
- Digital Fabrication
- Software Development: C++/Vulkan

### **Benefits package**

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours)

- + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

## Remuneration

2100 € gross/month the 1st year

## General Information

- **Theme/Domain** : Interaction and visualization  
Scientific computing (BAP E)
- **Town/city** : Villers lès Nancy
- **Inria Center** : [Centre Inria de l'Université de Lorraine](#)
- **Starting date** : 2024-12-01
- **Duration of contract** : 3 years
- **Deadline to apply** : 2024-08-23

## Contacts

- **Inria Team** : [MFX](#)
- **PhD Supervisor** :  
Chermain Xavier / [xavier.chermain@inria.fr](mailto:xavier.chermain@inria.fr)

## About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

**Warning** : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

## Instruction to apply

### Defence Security :

This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

### Recruitment Policy :

As part of its diversity policy, all Inria positions are accessible to people with disabilities.