

# NANO-D

Algorithms for Modeling and Simulating Nanosystems



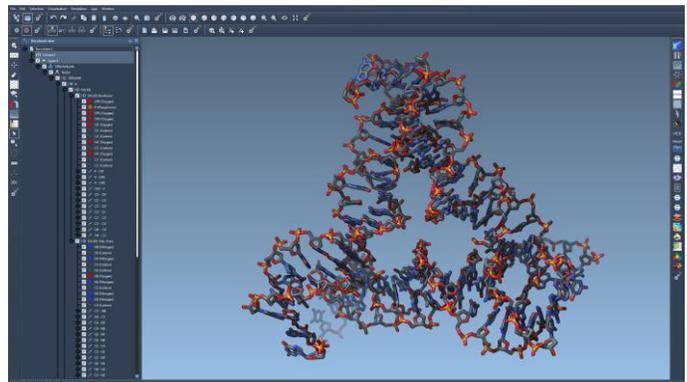
## Cloud computing for computational nanoscience

### Internship Opening

#### SAMSON: a software platform for computational nanoscience

SAMSON (Software for Adaptive Modeling and Simulation Of Nanosystems) is a computer software platform for computational nanoscience being developed by the NANO-D group at Inria.

SAMSON has a modular architecture that makes it suitable for different domains of nanoscience, including material science, life science, physics, electronics, chemistry, and education. SAMSON Elements are modules for SAMSON, developed with the SAMSON software development kit (SDK). SAMSON Elements help users perform tasks in SAMSON, including building new models, performing calculations, running interactive or offline simulations, and visualizing and interpreting results.



SAMSON is available at <https://www.samson-connect.net>.

#### Cloud computing for computational nanoscience

The goal of this internship is to develop methods for performing distant (cloud) calculations from SAMSON. Precisely, the successful applicant will setup remote servers (e.g. AWS instances) to perform simulations, and will develop Apps for SAMSON that are able to connect to these remote servers and launch calculations, as well as get back results for analysis in SAMSON.

#### Desired profile

We are looking for creative, passionate and hard-working individuals with exceptional talent for computer science. The successful applicant will have a Bachelor's / Engineer's degree in Computer Science, and will typically be a first-year or second-year master student. Excellent oral, written and interpersonal communication skills are essential (the working language will be English – knowledge of French is a plus but is not required).

NANO-D

INRIA Grenoble – Rhône-Alpes Research Center

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<https://team.inria.fr/nano-d>

<https://www.samson-connect.net>

## Minimum requirements

- Bachelor's / Engineer's degree in Computer Science or equivalent
- C++

## About Grenoble

Grenoble is the capital city of the French Alps. Combining the urban life-style of southern France with a unique mountain setting, it is ideally situated for outdoor activities. The Grenoble area is today an important centre of industry and science (second largest in France). Dedicated to an ambitious policy in the arts, the city is host to numerous cultural institutions. With 60,000 students (including 6,000 foreign students), Grenoble is the third largest student area in France.

## About the NANO-D research group at INRIA

The NANO-D group, led by Stephane Redon at INRIA, develops novel multiscale, adaptive modeling and simulation methods, which automatically focus computational resources on the most relevant parts of the nanosystems under study. All algorithms developed by the group are gathered into SAMSON, an open-architecture software platform designed by NANO-D (SAMSON: Software for Adaptive Modeling and Simulation Of Nanosystems), available at <https://www.samson-connect.net>.

The NANO-D group is funded through ANR grants, an ARC grant from the Rhone-Alpes region, grants from the European Research Council, and the Nanosciences Foundation (<http://team.inria.fr/nano-d>).

## Salary

Salary is a function of the internship duration and type. Please contact us for more information.

## For more information / To apply

Send an email to Stephane Redon ([stephane.redon@inria.fr](mailto:stephane.redon@inria.fr)) with a resume.