

## Clément Stahl

11 rue de l'université,  
67 000 Strasbourg, France

E-mail : [clement.stahl@astro.unistra.fr](mailto:clement.stahl@astro.unistra.fr)

Website: <https://cstahl.cicogna.fr>

Born 23 June 1990 in

Strasbourg

Nationality : French

Married, one son

## Current Position

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2021-present

### Postdoc in Galaxy scale physics

Centre National de la Recherche Scientifique (CNRS, National Centre for Scientific Research, France) and Observatoire Astronomique de Strasbourg (ObAS)

Main collaborators: Profs. Ibata R. ; Famaey B. ; Hahn O.

Research on Dark Matter, exploration of gravitational alternative to Poisson equation in N-body experiments. Development of the numerical code RAMSES.

## Previous Positions

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2019-2021

### Postdoc in Numerical Cosmology

Astroparticle and Cosmology (APC), Paris, France

Main collaborators: Profs. Chardin G. ; Dubois Y. ; Adamek J.

Research on Large Scales Structures in the non-linear regime, development of the numerical code RAMSES and *gevolution*, creation of the code RELIC.

2017-2019

### Postdoctoral fellow in Theoretical Cosmology

Pontificia Universidad Catolica de Valparaiso (PUCV), Chile

Main collaborators: Drs. Noreña J. ; Gannouji R.

Research on Large Scales Structures in the non-linear regime, in particular non-gaussianities in the light of field theory.

## Education

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2013-2017

### PhD in Theoretical Cosmology

ICRANet (International Center for Relativistic Astrophysics Network), Pescara, Italy

Supervisor: Prof. Remo Ruffini

Thesis title: On early and late phases of acceleration of the expansion of the universe

Date of Award: 23/01/2017

Visiting PhD student in Nordita, Stockholm, Sweden (january 2016-june 2016)

Main collaborators: Profs. Xue S-S; Bavarsad E.; Kim S-P; Dr. Strobel E.

Research on inflation and QED in curved spacetime.

2008-2013

### Diploma in Theoretical Physics

University Paris XI, Orsay, France

master NPAC (Nuclei, Particles, Astroparticles and Cosmology)

*Magna Cum Laude*

One year of Erasmus exchange in Imperial College, London, England

## Fellowship and awards

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2023

### Computing time

500 000 CPU hours on GENCI, the french national supercomputing facilities ( $\sim 3$  k€).

2017-2019

### Fondecyt PostDoc position, Chile

Competitive national fellowship ( $\sim 70$  k€) awarded on academic merit and 20-pages research proposal.

2013-2017

### Erasmus Mundus Grant, European Union

Grant from the European Union "Erasmus Mundus" ( $\sim 60$  k€).

2013

### UCSC Institute for the Philosophy of Cosmology Santa Cruz, USA

After selection, grant of 3 k\$ to study fundamental questions of the philosophy of cosmology in a 3-week workshop.

2010-2013

### Scholarship of the French government

Yearly grant on academic merit ( $\sim 3$  k€/year)

## Teaching and Mentoring Activities

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2023	<b>Supervision</b> of Nicolas Mai (M2 of Astrophysics, Strasbourg) on non-gaussianities in N-body simulations.
2022	<b>Supervision</b> of 4 students of Master 1: Martin Bordeau, Nicolas Mai, Thomas Oliveira and Renaud Vancoellie (working by pairs) on warm dark matter and non-gaussianities in N-body simulations (with Benoit Famaey). 3 of them are now in the Master 2 of Astrophysics of Strasbourg.
2021-	<b>Lessons of physics in preparatory classes (Bachelor)</b> Lycée Kleber, Strasbourg, France. 90 hours.
2020	<b>Supervision</b> of Tristan Provost et Divya Mishra (Bachelor and Master 1) on galactic rotation curves (with Gabriel Chardin). <b>Mentoring</b> with <b>Thomas Montandon</b> (PhD) on initial conditions for N-body simulations for LSS (with Bartjan van Tent). Now PostDoc in Wien with Oliver Hahn.
2019	<b>Lesson of Differential geometry</b> Teacher : Jorge Noreña, PUCV, level Master, 20 hours.
2018-2020	<b>Mentoring</b> with <b>Lina Castiblanco</b> (PhD) et <b>Juan Calles</b> (PhD) on various projects about relativistic corrections for LSS. (with Jorge Noreña). Lina is now PostDoc in Newcastle with Cora Uhlemann.

## Organisation of scientific meetings

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06-2022	Journées Scientifiques Galaxies (100 participants) member of the Local Organizing Comitee, Strasbourg, France
07-2018	Marcel Grossmann meeting (1000 participants) in Rome. Co-chaired (with Dr. R. Ganouji) the parallel session “Dark Energy and Large Scale structure” (DE2).

## Institutional Responsibilities

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12-2022	Member of the consortium Euclid
2022	Representant of the PostDoc at the executive board of Strasbourg’s observatory
2017-2019	Organizer of the internal seminar of PUCV and joined seminar in Valparaiso-Santiago, Chile.
2016	Organizer of the internal seminar in ICRANet Pescara, Italy.

## Skills and interests

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### Computing and Editing

Bash, HTML, LaTeX, Mathematica, Python (numpy, scipy, PyTorch)

### Cosmology tools

CLASS, Gadget, gevolution, MUSIC/monofonIC, Pylans, RAMSES, YT, ytree

### Associations

Member of Coscience for free publication (<https://www.sjscience.org/>, tribune published in le Monde) and of the newsletter labo 1.5 (<https://labos1point5.org/>) for the ecological impact of research.

**Hobbies** chess (tournaments player), trumpet (jazz, classical), cooking (Chilean and Italian cuisine), ski, hiking (mainly in Alsace)

### Languages:

**French** Mother tongue  
**English** Fluent  
**German** Conversational  
**Italian** Conversational  
**Spanish** Conversational  
**Swedish** Basics