Advice for the 2027 CR competition

Section 01 of the CoNRS

November 10, 2026

This text provides some advice to the candidates to CR (Chargé·e de Recherche, junior researcher) positions in mathematics in 2027. We remind the candidates that the only official source of information is the CNRS's institutional communication. In particular, we invite them to read the candidate's guide, which can be found on the following website: `https://carrieres.cnrs.fr/en/external-competitions-for-researchers-m-f/`.

We also remind candidates that we will use our website (`https://cn.math.cnrs.fr/`) to communicate information such as the list of members of the hiring committee and of the interview sub-committees, the calendar of the committee's meetings and of the interviews, as well as the schedule and format of the interviews. We advise them to also read the general text on the use of generative AI that will soon be made available on our website.

1 Uses of generative AI by the committee and candidates

The committee makes the following pledge:

- We will not put any part of any application in any generative AI tool.
- We will not use generative AI tools to make a decision on the quality of an application.
- We will not penalize the candidates either for using generative AI tools in their research or for not using them.

The committee asks the following from the candidates:

- To write their report on previous research and their research project without the assistance of generative AI tools.
- To include a declaration about the use of generative AI in their research, which explains, for each of the scientific productions highlighted in the application, what the methods, goals and results of that use were.

2 Application materials

An application should contain among other things the following materials:

- A CV. This should mention, in addition to research activities, community-building activities such as seminar and conference organizing, teaching experience and outreach activities.
- Instead of a full publication list, a selection of a few [1] significant scientific productions (articles, preprints, software, databases etc). The committee asks candidates to give a brief rationale for their choices.

[1] At most 7, see the candidate's guide.

The committee does not base its evaluation on bibliometric criteria. Therefore, the choice of these scientific productions must rest on scientific reasons.

- A report on previous research. This report is typically 8–10 pages long. The committee asks candidates to choose a maximum of three research contributions that they will highlight and put into broader context. If the candidates have used generative AI, we ask them to explain the methods, goals and outcomes of this use.
- A research project. This is typically 8–10 pages long.
- Finally, it is recommended to also include the text of the candidate's PhD thesis, as well as all the reports written about the PhD manuscript and the PhD defence.

We expect from the candidates that they make their report on previous research and their research project as clear and accessible as possible. These reports should be understandable both to specialists in the field and to mathematicians working outside the candidates' area of research.

Note to the writers of recommendation letters. The procedure to submit recommendation letters will be available via the online application form. We ask colleagues writing recommendation letters to avoid arguments from authority and to only use scientific arguments. Furthermore, although the committee takes into consideration the integration project of the candidates into the chosen departments, letters of commitment from the chairs or from potential departments or their representatives are not required.[2]

3 Evaluation criteria

The evaluation criteria of Section 01 for the hiring of Chargé·es de Recherche (junior researchers), available on our website and on the website of the Comité National de la Recherche Scientifique, are the following:

- **Quality and originality of scientific production.** This quality will be judged based on the application materials and on the scientific contributions highlighted by the candidate.

  The report on previous research cannot simply list mathematical results obtained by the candidate. We expect the following from this report:

  - It should explain the origin and context of the studied research questions, and compare them with the state of the art in the field.
  - It should present the methods, tools and concepts used in obtaining the results, as well as the new ideas and approaches involved.
  - It should explain the results, their novelty compared to existing mathematical literature, their interest and impact, and the new perspectives that they are opening.

- **Interest of the research programme.** The same recommendations as for the report on previous research are applicable.

  The origin of the questions and research directions should be described in a way that will help the committee understand the motivations and originality of the research project, as well as its relevance to the progress of mathematical knowledge. We would like to remind the candidates that, while the capacity to solve difficult mathematical questions is undeniably a useful quality, a research project cannot be simply a list of questions or problems proposed by the community, no matter their importance. We expect from candidates that they develop

[2] Assignment to a department is handled by the CNRS Mathematics Institute rather than by the committee.

their own point of view on their field of research. Being able to identify new questions or new directions of research, to introduce new concepts and to develop new methods is a quality that will have an important weight in our evaluation.

Note. The committee is fully aware that generative AI has lately caused very fast, and occasionally chaotic, evolutions in some research areas. This can significantly and unexpectedly impact research programmes, but the committee considers that it can nevertheless be interesting to pursue them, provided this is scientifically motivated. Indeed, the rapid proliferation of texts whose results have not been verified by mathematicians are not up to the mathematical community's standards and does not on its own constitute a definitive answer to the corresponding problems.

- **Autonomy.** The interest of CNRS is to hire people who can introduce, develop and explain interesting concepts. Scientific autonomy with respect to supervisors is therefore an important criterion.
- **Participation in the life of the scientific community.** This covers a wide spectrum of activities: co-organizing and actively participating to working seminars /seminars/workshops, being a student representative in local instances, participating to the life of the department, etc. This criterion will also take into account any activity aimed at developing interactions among members of the mathematical community.
- **Dissemination.** The committee will also pay attention to scientific outreach activities. In the present context and with the large-scale deployment of generative AI tools, transmitting scientific knowledge and putting it into perspective becomes even more important.

The committee will take into account the experience level of candidates when weighing all these criteria.

4 Format of the declaration on the use of generative AI

The committee recommends a declaration in two parts:

1. A paragraph giving an overview of the candidate's use or non-use of generative AI in their research activities. We recommend including more details if the impact of the use of generative AI on the candidate's scientific production is important.
2. For every scientific production selected in the application, a short declaration on the use of generative AI in the corresponding project.

Examples of uses requiring a detailed declaration

- Generating original statements – Generating original arguments in proofs – Creating or editing software.
- Assisting with proof writing – Simplifying proofs or hypotheses – Rewriting statements (properties or definitions) – Checking and formalizing proofs.
- Identifying research directions or research questions – Brainstorming – Studying and reviewing literature.

Examples of uses requiring a declaration

- Synthesizing documents – Looking for sources for a precise statement.
- Creating or modifying images or figures – Editing articles (reorganizing, reformulating, translation, checking notation...).

5 Interviews

The interview format will evolve to allow more in-depth discussion with the committee about the candidates' previous research and research programme. For the 2027 interviews, we are planning to implement the following format:

- Interviews consisting of a 10-minute presentation by the interviewee followed by about 30 minutes of discussion with the interview sub-committee.[3]
- Interview sub-committees composed of 9 members of the committee.[4]

This format will be confirmed on our website after the committee has met to determine the list of interviewees, and the precise composition of the interview sub-committees will also be given at that time.

Note to the whole community. This change will necessarily lead to the committee being more selective during its first meeting and interviewing fewer candidates. We would like to remind everybody of the following points:

- The list of interviewees only represents the choices of this particular committee, and it should not be used by another hiring committee as a shortcut to estimate the mathematical value of a young colleague.
- The CNRS hiring committee receives an extremely high number of outstanding applications and is not able to interview every excellent candidate.[5]

[3] Instead of a 10-minute discussion in 2026.

[4] Instead of 4-5 in 2026.

[5] In 2026, there were 14 available positions. We received applications from 416 people, and we interviewed 51 of these candidates.