

# Call for Collaborators

## Archimedes Research Unit, “Athena” Research Center

### May 2022

## INTRODUCTION

The "[Archimedes](#)" Unit for Research in Artificial Intelligence, Data Science and Algorithms of the Research Center "[Athena](#)," founded in January 2022, **issues its first call for collaboration with researchers**, both in Greece and abroad. In particular, “Archimedes” is looking to initiate, starting in the first year of its operation, several collaborations with researchers in Greece or abroad for ground-breaking research in Artificial Intelligence and its supporting disciplines, including Algorithms, Statistics, Computational Neuroscience, and Data Science, with emphasis in the mathematical and conceptual foundations of these fields. The research will be conducted in the space of “Archimedes” in Athens.

**Note:** This is not a call for funding. It is a call for engagement with "Archimedes" in the form of adjunct researchers, who will be supported in their research work within "Archimedes."

The deadline for applications is **July 15, 2022**.

### How will "Archimedes" operate

For its first few years of operation “Archimedes” will not hire permanent researchers. It will solely work with external, adjunct, research collaborators. The scientific-research staff of “Archimedes” will consist of two main groups of scientists.

The first will be composed of "Lead Researchers" (LRs or adjunct, research collaborators), of which most will work in Greek institutions (universities or research centers) and some will come from respective institutions from abroad. The LRs are expected to contribute to the research vision of "Archimedes" and lead the Early Career Researchers (ECR), which will be the second group of scientists-researchers of "Archimedes." The ECR team will comprise young scientists, who will have completed their undergraduate studies and will either attend a graduate program, or prepare their doctoral dissertation, or will be employed at “Archimedes” as postdoctoral researchers. It is not excluded that some exceptional undergraduate students may also be members of this team.

The selection of LRs will be made after an open invitation for submission of research proposals, which will be evaluated by the Scientific Advisory Board, on their research quality and harmonization with the overall goals of “Archimedes.” The duration of the LRs’ collaboration with “Archimedes” will vary and depend on the research program they undertake and the commitments they make with the organizations in which they work. In general, their relationship will be sought to be long-term and their presence in “Archimedes” to be strong.

A proposal should indicate the intended composition of its research team which might comprise one or two LRs and typically 3-4 ECRs. A proposal need not but could name specific members for its research team, if those are known at the time of the proposal. “Archimedes” will financially support the research team, as well as the participation of its members in conferences, their contact with other research centers, their working visits to universities and institutes, and generally activities of research "osmosis" and diffusion, which will benefit the research and contribute to the scientific development of its members, and mainly its ECRs.

Research on the approved projects will be conducted in the space of "Archimedes." Generally speaking, researchers from Greece will be expected to spend 2 days a week performing research for their collaboration with "Archimedes," while researchers from abroad are expected to spend two months per year at "Archimedes" with continued engagement in their project throughout the year. Precise terms are flexible to accommodate individual needs and will be discussed post decision.

## The process

This call will identify the LRs that will engage with "Archimedes." After the selection of successful applicants, "Archimedes" with the help of the LRs will compile the list of ECR positions that will be advertised via a **separate call** in early fall 2022. Through this second call, PhD students and possibly postdocs will be selected to join the teams. We expect that most of the proposals will include new PhD student positions. In the case of LRs selected who are not faculty members at Greek universities, "Archimedes" will assist in securing registration of the respective PhD students in Greek doctoral programs.

## Funding available

Through this call, we expect to support about **ten research collaborations (projects)**. Each project will be led by a **lead Principal Investigator (LPI)**, funded for two years and is expected to be renewed for an additional two or three years. More information on funding is available below.

## Research challenges

This call is seeking proposals for projects addressing research challenges in any area of Artificial Intelligence and its supporting disciplines, including Algorithms, Statistics, Computational Neuroscience, and Data Science, with emphasis in the mathematical and conceptual foundations of these fields.

# APPLICATION PROCESS

We encourage pre-submission discussion on the scientific direction of your proposal with the "Archimedes" [Principal Scientists](#) (Profs Papadimitriou and Daskalakis), via email at [ps-archimedes@athenarc.gr](mailto:ps-archimedes@athenarc.gr).

Any queries regarding process, post-award requirements, or general eligibility should be addressed to the [Scientific Director](#), via email at [director-archimedes@athenarc.gr](mailto:director-archimedes@athenarc.gr).

The process summary is as follows:

- Written application completed by the lead Principal Investigator (LPI) and submitted online
- First stage: Scientific Director and Principal Scientists perform initial review and check eligibility
- Second stage: applications which pass first stage are then sent to the Scientific Advisory Board (SAB) for review
- The SAB reviews applications and makes recommendations
- Successful applications selected
- Applicants notified of outcome by Scientific Director

## Eligibility

Applicants must be faculty members or researchers, in universities or research centers in Greece or abroad. For our inaugural class of research scholars, we are looking for a mix of

about ten local (Greece) and international LPs, with a majority of the former. A researcher can participate in **at most one** proposal.

## How to apply

Applications must be submitted via the online portal that will be available soon.

A proposal will include

- **Project title**, abstract (200 words max)
- **Personal research statement** (250 words max), summarizing the lead PI's most significant research accomplishments and the ways in which they point to and vouch for the proposed research
- **Research statement** (maximum 3 pages):
  - Include a description of the scientific approach, aimed at an appropriate technical audience (i.e. broader audience than deep specialists in this subject area, but more informed than a lay person or a computer scientist in a different area). Answer questions such as: What is innovative, ambitious, and non-incremental about the proposed research? Why are you uniquely placed to undertake this task? What is the expected scientific impact? What is the expected application impact (where appropriate)?
  - Include (beyond the word count) any images/figures and references (publications referenced)
- **Project plan**, including timelines and additional resources required (whether via this fund or through in-kind contributions), with justification (maximum 2 pages)
- **CVs** of all investigators, students, and any project collaborators named in the proposal (2 pages maximum per CV, merged into one file and uploaded as a single pdf)
- Consideration of **risks and mitigations**, assumptions, dependencies, exclusions and constraints (300 words max)
- **Impact statement**, including desired/expected outputs and relevance to the challenge (maximum 1 page)
- **Research Team**. Typical projects will involve apart from the lead PI, at most one more LR, 2-3 PhD students, and in well justified cases possibly a postdoc. PhD students will be doctoral candidates in Greek Universities. A proposal is not required to specify the members of the team other than the lead PI, unless they are known at the time of the proposal.
- **Letters** confirming intent to collaborate from any partners outside of the lead applicant and named in the proposal (pdf format)

There are no fixed templates for the above. The proposals will only specify the personnel needs of the project, in terms of support for LRs, graduate students, and postdocs, as well as any instrumentation needs. **No amount needed**. All personnel will be compensated by a competitive package, and there will be a generous additional budget for administrative, travel, etc. expenses. Eligible costs include:

- salary of personnel working directly on the project – this includes LRs, postdocs, PhD candidates, etc. LRs from Greek institutions typically will get additional stipends through their organisations, while LPs from abroad typically will get summer salaries
- travel, subsistence and fees for travel by project researchers
- support for travel and hosting of international visitors and research groups

The final budget will be negotiated and agreed once the proposal has been selected.

## Selection

We are looking to collaborate with researchers of outstanding promise at all career stages, who will make "Archimedes" the nexus of world research in this field. The final selection will be

carried out in consultation with the Scientific Advisory Board of "Archimedes." We are expecting to see ambitious, European Research Council (ERC) - level proposals.

Proposals will be assessed based on the following criteria:

- **Research excellence**, including:
  - Excellence of LR(s)
  - Clarity of project plan
  - Centrality to the themes of Artificial Intelligence and its supporting disciplines, including Algorithms, Statistics, Computational Neuroscience, and Data Science, with emphasis in the mathematical and conceptual foundations of these fields
  - Clarity of desired outputs and impacts
  - Technical ambition and innovation
  - Appropriately experienced and qualified research team, if known
- **Impact**
  - Potential for major scientific impact
  - Potential for further development/adoption by academia and/or industry
  - Promise to contribute to the creation of a unique and exciting research environment
  - Involvement of collaborators from Greece and abroad
- **Value for money**
  - Reasonable and fully justified team structure and involvement

## POST-AWARD INFORMATION

### Project meetings

Successful applicants will be expected to attend a kick-off meeting, progress meetings, and other scientific meetings (workshops, events, etc). These may take place in Athens or other locations. LPIs will also be required to attend an event for a day (at a mutually agreeable date) to present an invited technical briefing to a wider community of scientists on the latest research directions within their research group.

### Funding agreement and payment

Successful applicants will be required to sign a collaboration agreement with "Archimedes" (via the "Athena" Research Center). Acceptance of the terms and conditions is a precondition to receiving the award.

### Engagement

Research funded by "Archimedes" will be carried out, throughout the year, in the premises of "Archimedes" in Athens. LRs from Greek institutions are expected to spend 2 days a week working for "Archimedes." LRs based abroad will agree to spend roughly two months per year in Athens. All LRs will continue to be involved in the project throughout the year, through online meetings and potentially also funded visits by the project's personnel at the LR's institution. LRs are expected to be active leaders of the "Archimedes" community, contributing to PhD student supervision, participation in funding applications, research dissemination, engagement with partner organisations, etc.

### Outputs required

We require that all projects will produce the following:

- Annual reports narrating the project's progress and products to-date, as well as new opportunities and challenges.
- A monograph-styled final report that describes (in technical depth) the innovations of the research, together with the results of disseminating the research outputs, as well as a

roadmap for subsequent work that could be undertaken, drawing on the understanding gained from the undertaken research. The monograph will be published by "Archimedes".

- Several papers in the area's top venues.
- Technical outreach to the research community in Greece and internationally related to the project, including workshops, collaborations, exchanges, etc.

If outputs do not meet the Center's standards, re-work will be requested before final acceptance.

## IMPORTANT DATES

Publication of call for proposals	June 2, 2022
Q&A session	June 10, 2022
Deadline to submit	July 15, 2022
Eligibility checking, resubmission requests	July 22, 2022
Final selection	August 2022
Projects start	September 2022 <sup>§</sup>

### Q&A session

A Q&A session to present the call and answer any questions prospective applicants may have will be held on Friday June 10 at 5pm Athens Time. Please **register your interest to attend the session** [here](#); we also welcome issues/questions that you would like to see addressed via the same form.

### Queries

For general queries about eligibility or administrative aspects, contact the Scientific Director, via email at [director-archimedes@athenarc.gr](mailto:director-archimedes@athenarc.gr).

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<sup>§</sup> Depending on the availability of funding