

# AIMS-Carnegie Research Chairs in Data Science and its Applications at Quantum Leap Africa

## Terms of Reference for Chairs

### Purpose

This document describes the terms of reference for AIMS-Carnegie Research Chairs in Data Science and its Applications. These Chairs will be based at Quantum Leap Africa (QLA), a pioneering AIMS initiative that seeks to position Africa at the forefront of information science, particularly of the quantum variety.

This Research Chairs Program was made possible by a grant from the Carnegie Corporation of New York and the government of Rwanda, and it is administered by QLA at AIMS.

### Eligibility

These positions are open to outstanding qualify young academics in data science and its related disciplines in/from the diaspora who completed their doctorate less than ten years ago.

- ❖ Applicants must be of African descent and could be residing anywhere in the world.
- ❖ If based in Africa, the applicant should have spent a percentage of their postgraduate or postdoctoral or career term outside the continent.
- ❖ Applicants should demonstrate significant evidence of excellent, self-initiated and self-directed research in data science and its related disciplines.
- ❖ Applicants should have experience supervising Master's and/or PhD students.
- ❖ Applicants should be willing to work from the QLA premises in Rwanda although they will have the freedom to travel and engage with collaborators worldwide.

### Terms and Conditions

#### Expectations

- ❖ The Chair is expected to develop a world-class research program in data science.
- ❖ The Chair will be based in Rwanda (QLA) but may execute (research) projects anywhere.
- ❖ The majority of the research projects shall depend substantively on the mathematical sciences.
- ❖ Projects involving human and/or animal subjects shall adhere to the highest applicable ethical standards. The Chair shall request and receive permission from AIMS before embarking on such projects. Such permission may be granted subject to additional conditions, which shall be communicated to the Chair.



- ❖ The Chair is expected to promptly disseminate the outputs of his/her research through international, peer-reviewed journals; conference presentations; and other appropriate mechanisms.
- ❖ AIMS, Carnegie Corporation of New York, and the government of Rwanda should be duly acknowledged in all communications (publications, presentations, etc.) concerning work done by the Chair.
- ❖ All books and journal articles resulting from the Chair's work should be made freely available to the public, in post-print form, within 12 months after the initial publication date. Funding will be provided for open-access publication. All other project outputs should be sent to AIMS for submission to an appropriate open access repository.
- ❖ The Chair shall respect existing intellectual property rights. In addition, the Chair shall immediately report to AIMS any patentable output resulting or anticipated from his/her work. S/he shall not license, or otherwise assign the rights to such outputs without written permission from AIMS.
- ❖ If the Chair is unable to take up the position by the agreed start date, then s/he shall inform AIMS through email ([qlachairs@nexteinstein.org](mailto:qlachairs@nexteinstein.org)) as soon as possible.
- ❖ The Chair shall submit quarterly progress reports to AIMS.. A reporting template will be provided for this purpose.
- ❖ In the event of a change in the Chair's circumstances that makes him/her unable to continue to adhere to these Terms of Reference s/he should immediately notify AIMS by email. A failure to do so will be considered a breach of these Terms of Reference and render the Chair subject to dismissal at the sole discretion of AIMS.

#### **Duration**

- ❖ The Chair is tenable for a period of five years commencing on the agreed start date, which shall be specified in the Chair's contract with AIMS.
- ❖ AIMS may decide to terminate the Chair if the Steering Committee (see below) deems the Chair's performance to be significantly below expectations (see *Expectations*).
- ❖ AIMS shall provide administrative support to enable the Chair to apply for external grants and engage in knowledge transfer activities with the public and private sectors. Depending on the value and duration of additional financial support secured through these activities, AIMS may decide to extend the Chair's tenure.
- ❖ The Chair may not seek alternate employment before the last twelve (12) months of his/her tenure.

#### **Financial support**

- ❖ The total amount of direct financial support available to each Chair is approximately USD one million.
- ❖ This amount will cover:
  - relocation of the Chair and family members to Rwanda;
  - the Chair's salary;



- fellowships for postdoctoral fellows (up to 4);
  - bursaries for Master's (up to 5) and PhD (up to 2) students;
  - attendance at national, regional and international conferences;
  - hosting of conferences, workshops, and/or summer school at QLA;
  - hosting of collaborators at QLA; and
  - public dissemination of research results.
- ❖ Members of the Chair's research group may be eligible to apply to AIMS for additional funding in the form of small research grants.

### Performance Review

- ❖ The Chair's performance will be reviewed annually by a Steering Committee constituted by AIMS. The Chair will be made aware of the criteria employed in the review process.
- ❖ The review will not be done in an adversarial manner; rather the goal will be to support the continued growth of the Chair's research while acknowledging that the Chair is a strategic asset to both AIMS and the people of Africa.

### Application and Evaluation Procedures

#### Application procedure

Applicants must use the [online application portal](#) to apply and submit the below supporting documents before the deadline indicated in the call for applications:

- ❖ a completed proposal form,
- ❖ a letter of motivation,
- ❖ a curriculum vitae, and
- ❖ electronic copies of three representative publications on which the candidate is the lead and/or senior author.

These supporting documents should be submitted in a pdf format and named using the following format: "AIMS-Carnegie-Chair–first and last name of applicant-type of document-monthyear of submission" e.g. "AIMS-Carnegie-Chair–JohnJake-CV-July2018"

Before starting the application process, applicants should provide complete and accurate contact information (email address, title, names) of three referees who will provide confidential letters of support on their behalf. We will request these letters of support directly from the referees. It is the applicant's responsibility to provide their referees with a copy of the 'Terms of Reference' and the 'Instructions for Referees'. The applicant is also responsible for ensuring that their referees have received the request for a letter of support from us and have submitted the requested letters to us on time.

Applications shall be considered complete if all the documents listed above, including support letters, are received by AIMS on or before the application deadline. For more details on the application procedure, please visit [www.quantumleapafrika.org/careers](http://www.quantumleapafrika.org/careers).

### **Evaluation procedure**

Applications will initially be screened for relevance and then evaluated by an international selection committee based on the following criteria:

- ❖ Quality of applicant: academic qualifications; quality of publications; research experience in data science, especially machine learning; real-world impact of their prior research and recognition (e.g. through awards).
- ❖ Quality of proposed research: novelty; strength of connection to mathematical sciences; experience of applicant in research topic; quality of research design; feasibility; suitability of proposed research environment(s); and quality and realism of budget projections.
- ❖ Potential impact of proposed research on scientific knowledge, practice and policy.

### **Review**

This document shall be reviewed as needed by an Oversight Committee and the AIMS Secretariat.