

# A model for continental Hybridization of High-performance computing (HPC) in Africa

Paul Okanda<sup>1</sup> and Xavier Ochieng<sup>2</sup>

<sup>1</sup>United States International University School of Science and Technology

<sup>2</sup>United States International University

May 12, 2023

## Abstract

The potential for High-performance computing (HPC) opportunities in the areas of health, environment, energy, climate change, business and livelihood are immense in Africa. However, the lack of sufficient HPC facilities and capacity skills deficiencies continue to curtail its growth. This paper maps the status of HPC facilities in Africa. Thereafter based on a review of various business and funding models, it suggests a hybridization model as a way for building HPC infrastructures across the continent. The main contribution of this paper is the anchoring of hybridization as a business model for improving the access and establishment of HPC infrastructure in Africa.

**A model for continental Hybridization of High-performance computing (HPC) in Africa** Paul Okanda (corresponding)

Email: pokanda@usiu.ac.ke

United States International University-Africa, Kenya

&

**Xavier Ochieng**

Email: xvrfrank@gmail.com

United States International University-Africa, Kenya

## Hosted file

HPC\_Mapping\_Review\_V2\_Submission.docx available at <https://authorea.com/users/617737/articles/643022-a-model-for-continental-hybridization-of-high-performance-computing-hpc-in-africa>