

ASFAP— Letter of Interest

Challenges facing young African physicists in their research careers: postdoctoral opportunities in Africa

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Primary Category: Young Physicists Forum

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Did you / will you submit this LOI to another category? No

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Abstract

Postdoctoral fellowship plays a vital role in the research process in fundamental and applied physics. This is a period of "apprenticeship" for a young physicist to develop their new ideas or improve their skills under the guidance of an experienced scholar. Depending on the research field and other factors, training can last a year or two and beyond. This apprenticeship provides young postdoctoral physicist with critical experience and helps to develop the skills they need to become future research leaders. Yet, very few African research institutions offer postdoctoral opportunities, primarily due to a lack of funding and mentorship. In this Letter of Interest, we will address some of the challenges facing young African physicists in case they are able to get a postdoctoral fellowship at African research institutions.

Lack of support, mentorship & guidance

Most young physicists in Africa do not able to obtain required support, mentorship and guidance from an experienced scholar in their institution upon assumption of duty. In a qualitative exploratory study conducted in Africa with respondents across 10 African countries, it was found that lack of mentorship is the major challenge encountered by the young researchers¹.

Lack of funding

Many African governments do not pay much attention to research in the field of fundamental and applied physics, in terms of funding and funding policies. This situation is due to a limited capacity to recognize research in physics as a priority and appreciate its role in sustainable development. African governments not only need to fund physics but must have a policy and vision for physics. Promoting research in physics should be seen as a means to improve the economy, not as a drain on the economy².

Grant writing

Good grant writing skills are essential for researchers and academics to communicate the importance of their research. Yet most young researchers haven't been properly trained in grant writing, an essential skill for accessing competitive funding for their research.

Conclusion

We represent the rising generation of physicists who will implement the research goals compiled by the ASFAP process. We have discussed some of the challenges faced by the young researchers in case they are able to get a postdoctoral fellowship at African research institutions, and we look forward to working with the ASFAP community to ensure that this training is enhanced. By addressing these concerns properly, we will train new physicists more effectively and take steps towards equity and inclusion in fundamental and applied physics.

References

- [1] K. S. et al., Challenges Facing Young African Scientists in Their Research Careers: A Qualitative Exploratory Study, *Malawi Med. J.* 29 (1), 1–4 (2017).
- [2] S. R. et al, Physics in Africa, *Nat Rev Phys* 2, 520–523 (2020).