Paper Submission Form - SAIP2025 Proceedings

Sections A, C, D, and E must be completed by all authors (including students) who submit papers. Section B is compulsory for students who submit manuscript(s).

Section A: Paper Submission Information

Paper/Abstract ID	#311
Paper title	Progress on the Experimental test of the generalized Brink-Axel Hypothesis in 139La nucleus
Corresponding Author Name & Surname:	A. Tsewu
Corresponding Author Email Address:	**ayabulelat@uj.ac.za**

Section B: For Students & Supervisors

Supervisor Name & Surname:	**Dr. BV Kheswa**
Supervisor Email Address:	**vincentk@uj.ac.za**

For this paper, the supervisor must agree/disagree with the following statements.

	Yes	No
1. I am aware that the above-mentioned paper is being submitted for possible publication in the Proceedings of the SAIP Conference. I am satisfied that the presented work is that of the listed authors. I hereby give consent to the submission	**Yes**	
2. I have proof-read the manuscript	**Yes**	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	**Yes**	
4. I am familiar with the required manuscript format ("House Style"), and I am satisfied that this manuscript meets the criteria. I am aware that manuscripts not conforming with House Style may be desk rejected	**Yes**	
5. I am satisfied that the scientific content of this manuscript is of sufficient standard for it to be considered for publication in the Proceedings of the South African Institute of Physics Conference Proceedings	**Yes**	

Student Name & Surname: …A..Tsewu…….. Signature: ……..…… Date: ...30/07/2025..

Supervisor Name & Surname: …B.V..Kheswa……..Signature: …….. Date: ...30/07/2025..

Section C: Suggested Reviewers

Obtaining the two referee reports necessary for DHET subsidy is an onerous task.

Please provide the names and contact details of three qualified South African and/or international referees. Referees should have a PhD and expertise in the relevant area of Physics. Do not recommend referees who have co-authored a work with any of the authors on the manuscript within the past five (5) years. Manuscripts without three recommended referees may be subject to desk rejection.

Suggested Reviewers in your Research Field (Both local & international)		
	Reviewer Names & Surname	**Reviewer's Email Address(es)**
Suggested reviewer #1	Prof Sifiso Ntshangase	ntshangases@unizulu.ac.za
Suggested reviewer #2	Prof Luna Pellegri	luna.pellegri@wits.ac.za
Suggested reviewer #3		

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

This work presents a new and precise test of the generalized Brink–Axel (gBA) hypothesis in the nucleus 139La, using high-resolution particle–γ coincidence data. Unlike previous studies that often used broad excitation energy bins and focused on lighter or even-even nuclei, this study applies a fine binning of 105 keV to track how the γ-ray strength function (γSF) changes with excitation energy. By examining a wide γ-ray energy range from 1.5 to 8.5 MeV, the results show that the γSF remains consistent across all excitation energy bins. This strongly supports the idea that the γSF is independent of how the nucleus is excited—just as the gBA hypothesis predicts. These findings not only test the hypothesis in a new mass region, but also provide better data for models used in nuclear physics and astrophysics.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

This manuscript benefited from language and editorial assistance provided by AI tools, specifically OpenAI's ChatGPT, which was used to refine grammar, improve clarity, and format scientific text. All scientific content, data analysis, and interpretation remain the author's original work.

Section E: Plagiarism

	Yes
I am aware that plagiarism detection software may be used on my manuscript.	Yes