### 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	448
Paper title	Orthogonality study for the A/S $\rightarrow$ ZdZd $\rightarrow$ 212v/212j with the ATLAS detector at the LHC
Corresponding Author Name & Surname:	Doomnull Unwuchola
Corresponding Author Email Address:	doomnull@gmail.com

#### **Section B: For Students & Supervisors**

Supervisor Name & Surname:	Lerothodi Leeuw
Supervisor Email Address:	Lerothodi@alum.mit.edu

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: Doomnull Unwuchola Signature:	(	_
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Date: 31/07/25

Date: ...31/07/2025.....

Supervisor Name & Surname: ...Lerothodi Leeuw.....

Signature:

**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	Rachid Mazini	Rachid.Mazini@cern.ch		
Suggested reviewer #2	Mukesh Kumar	mukesh.kumar@wits.ac.za		
Suggested reviewer #3	Deepak Kar	Deepak.Kar@cern.ch		

## Section D: Declaration of Novelty and Use of Al

How is this submitted manuscript scientifically novel?
In the channel I am doing the search, I have to come up with a technique to show that the other channel with the possibilty of an overlap can be taken care of without counting the available data twice. Also the technique mus be justified that when applied, it does not make the background topology to start looking more like the topology of the signal. All codes to do and implement this technique was done by me under the supervision of other group members
Please see the Author Guidelines for the AI use policy.
How was Al used in the generation of this manuscript?
NIL

# **Section E: Plagiarism**

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