

# 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	181
Paper title	A methodology for understanding phase-contrast tomography
Corresponding Author Name & Surname:	Preveshin Maduray
Corresponding Author Email Address:	preveshinm@uj.ac.za

## Section B: For Students & Supervisors

Supervisor Name & Surname:	Prof. Charis Harley
Supervisor Email Address:	charley@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	X	
2. I have proof-read the manuscript	X	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	X	
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	X	
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	X	

Student Name & Surname: Preveshin Maduray

Signature: 

Date: 31<sup>st</sup> July 2025

Supervisor Name & Surname: Prof. Charis Harley

Signature: 

Date: 31<sup>st</sup> July 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	Kudakwashe Jakarta	Kudakwashe.Jakarta@diamond.ac.uk
Suggested reviewer #2	Kathleen Dollman	dollman@esrf.fr
Suggested reviewer #3		

# Section D: Declaration of Novelty and Use of AI

## How is the submitted manuscript scientifically novel?

The manuscript introduces novelty in the technique that will be used to generate synthetic medical imaging. However, the manuscript describes a detailed workflow explaining the physical properties a hierarchical phase-contrast dataset, as phase one of the study, we are required to understand the data from a high-resolution phase contrast image of known electron densities but unknown materials and translate this information to a quantitative (phase and effective mass densities) dataset of known materials. The manuscript also introduces a methodology of calculating the phase shift as a function of the effective electron density for any hierarchical phase contrast dataset.

Please see the Author Guidelines for the AI use policy.

## How was AI used in the generation of this manuscript?

There were no AI tools used to generate or prescribe this manuscript.

# Section E: Plagiarism

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