

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

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|--------------------------------------|--|
| Paper/Abstract ID | 485 |
| Paper title | An Introduction to Quantum Computing - Teaching the Basics |
| Corresponding Author Name & Surname: | Taariq Surtee |
| Corresponding Author Email Address: | taariq.surtee@wits.ac.za |

Section B: For Students & Supervisors

| | |
|----------------------------|--|
| Supervisor Name & Surname: | |
| Supervisor Email Address: | |

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 | | |
| 2. I have proof-read the manuscript | | |
| 3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors | | |
| 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 | | |
| 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 | | |

Student Name & Surname: Signature: Date:

Supervisor Name & Surname: Signature: Date:

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 | Thomas Konrad | Konradt@ukzn.ac.za |
| Suggested reviewer #2 | Ilya Sinayskiy | ilya.sinayskiy@wits.ac.za |
| Suggested reviewer #3 | Tame, Mark | mstame@sun.ac.za |

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

Quantum Computing is considered a new and niche field where study is dominated by mathematics, physics and engineering research. At the same time, quantum computing is promoted and adding value to many other research disciplines, like medicine, molecular science, logistics and optimisation to name a few. However, without a physics, or information engineering background the barrier of using quantum computers is high.

This presentation and manuscript in the education track, attempts to extend quantum computing to other fields of study by introducing quantum computing using integrative teaching techniques and established common knowledge. It is adaptable to audiences with different backgrounds.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

Grammarly was used to assist with grammar corrections.

Section E: Plagiarism

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