

NITheCS Colloquium

NITheCS
National Institute for Theoretical and Computational Sciences

Growing Pains: Working, thinking and trusting in the age of AI

Dr Dean Brand *(Stellenbosch University)*

Monday, 21 September 2026 | 16h00–17h00 SAST

HOW TO ATTEND:

In person (main venue):

- Road House Cinema (Neelsie)
  Stellenbosch University

Watch at satellite venues:

- MITP Boardroom P215, 2nd Floor Physics Building
  University of the Witwatersrand
- Seminar Room K310
  Physics Building G5
  North-West University

Online (live stream)

--- Please note, a recording of the lecture will be published on the NITheCS YouTube channel following the event ---

ABSTRACT

Everyone has heard that AI will change how we work, but few of us know what to do about it. Between rapid progress at the frontier and a flood of noise everywhere else, it has become hard to tell where we actually are, what is real, and what is hype.

In this talk I trace the last few years of LLM-based AI, from the launch of ChatGPT to models now contributing to frontier mathematics and science, and ask what it means for working scientists. I'll argue that the real story is a familiar one: a tool that has outgrown the roads built for it. That shows up in our own habits, in how our institutions work, in how we verify what we and our tools produce, and in the geopolitics now shaping the field.

Along the way I'll share how these tools have changed my own research, including where they caught what peer review missed, and where they nearly misled me. The aim is to leave you with the questions worth asking, a place to start, and a sense of where this might be going next.

BIOGRAPHY

Dean is a postdoctoral researcher at Stellenbosch University (SU) in the Quantum Research Group under the supervision of Prof Francesco Petruccione. His research is on merging quantum and neuromorphic computing principles and paradigms for novel algorithms and architectures. His research has historically evolved through astrophysics, theoretical physics, and open quantum systems.

Dean received his Bachelor of Science and Honours degrees from the University of the Witwatersrand, Master's from the University of KwaZulu-Natal, and his Doctorate from SU.



REGISTER

TO ATTEND

https://bit.ly/4xzgION

LIKE / FOLLOW NITheCS:

nithecs.ac.za

info@nithecs.ac.za

science, technology & innovation
Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

NRF National Research Foundation

Stellenbosch UNIVERSITY IYUNIVESITHI UNIVERSITEIT