

Neil Lambert

- Born in UK but raised in Canada:
 - BSc U. of Toronto 1992
 - PhD in DAMTP, Cambridge, 1996
- Post-docs in King's College London, ENS Paris and Rutgers New Jersey
- Currently on leave from King's College London, Dept. of Mathematics

Interests

- Supersymmetry: formal issues, usually not in $D=4$.
- Branes: supersymmetric and non-supersymmetric.
- String Theory and M-theory: M2-branes and hopefully M5-branes

M-theory

- We now know that 'String Theory' is about much more than strings: Branes
- M-theory:
 - no strings but M2-branes and M5-branes in 11D
 - strongly coupled
- Little is known about microscopic M-theory
- But a great deal of recent progress on M2's
 - IR fixed points of 3D Super-Yang-Mills

M5-branes and QFT in $D > 4$

- So can we learn more about M5's?
 - M-theory tells us that there is a very non-trivial 6D CFT
 - UV completion of 5D MSYM which arises upon compactification on a circle with radius g^2
 - What is the precise relation to 5D MSYM?
- 'Toy' (field theory) model of the String Theory from 10D to M-Theory in 11D.
- Important consequences and lessons for QFT, not just Strings.
 - Suggests remarkable features of 5D MSYM and maybe a new non-Wilsonian view of QFT in $D > 4$