



Swansea University  
Prifysgol Abertawe

DOCTORAL THESIS

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**TITLE**

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*by:*

AUTHOR

*A thesis submitted in fulfilment of the requirements  
for the Doctor of Philosophy*

*of the*

Department of Physics,  
Faculty of Science and Engineering,  
Swansea University

August 28, 2024

# Declaration of Authorship

I, Ricardo Stuardo, declare that this thesis titled, "Holography and Dualities in Quantum Field Theories" and the work presented in it are my own. I confirm that:

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- This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended. In particular, the thesis is based on the following publications:
  1. J.M. Maldacena, *The Large  $N$  limit of superconformal field theories and supergravity*, *Adv. Theor. Math. Phys.* **2** (1998), 231-252, [arXiv:hep-th/9711200](https://arxiv.org/abs/hep-th/9711200) [hep-th].
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*"I copied - don't be afraid to copy - and eventually something that I  
suppose that I would call my own appeared."*

David Gilmour, 2019



# Abstract

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# Acknowledgements

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# Chapter 1

## Introduction

Intro [\[1\]](#)

## Chapter 2

### Title 2

# Bibliography

- [1] J. M. Maldacena, *The Large  $N$  limit of superconformal field theories and supergravity*, *Adv. Theor. Math. Phys.* **2** (1998) 231–252, [[hep-th/9711200](#)].