

Acknowledgements

I would like to thank my Ph.D. advisor, Bill Unruh, not only for teaching me a great deal of physics, but also for teaching me how to attack problems and discover interesting questions. For allowing me to wander off in other directions and subtle guidance.

I owe a great deal to Benni Reznik, for continual support, advice and a constant exchange of ideas.

Much of this work is contained in [1] - [7], and was done in collaboration with Yakir Aharonov, Benni Reznik, Sandu Popescu, and Bill Unruh. Thanks to my collaborators for their help, for many interesting discussions, insights and paradoxes.

Throughout my work, I have had the benefit of discussions with a number of researchers. Carlo Rovelli, Gonzalo Muga, Rick Leavens, and Bob Wald have been particularly helpful.

Thanks also to my committee members, Kristin Schleich, Mark Halpern, Gordon Semenoff, and Ian Affleck for their suggestions, and to fellow graduate students Lori Panikak, Adam Monahan, Richard Szabo, Todd Fugleburg, Martin Dube, Sebastian Jaimungal and others for their help.

Special thanks to the amazing Victoria Scott for drawing the cartoons for this thesis, as well as for everything else.

Thanks to all my friends and house mates for putting up with me.

To my parents, my brother and the grannies, I thank them for their encouragement their support and their interest, for giving me red boxes to play with, reading to me, and killing the television.

And finally, no thanks to APEC, the Big Cheese, and the Mounties.