

## Dedication

For  $K$ ,  $R$ ,  $r$ , and  $h$ .

- $\rho$

## Acknowledgements

[...]

Finally, this dissertation is for my family. My mother, Katie, is a scientist in the purest way, and constantly inspires me to find something new to wonder about in the natural world. My father, Ricardo, taught me that no matter how abstract or sophisticated a theory may seem, on some level it is about rats; and that sometimes a bicycle holds more answers than a supercomputer. My sister, Rosalind, brings wisdom and lightness to every challenge, and I am grateful every day that there are two of us. And lastly, Hatter never forgets to remind me to love the little things in life, and gives me a reason to come home even on the darkest nights.