To my parents and all friends

who have witnessed my intellectual growth,

To the great Mozart

Bach, Beethoven, Brahms, Wagner, Strauss . . .
Acknowledgements

Six years has passed since I came to Caltech, which has become the longest period I ever spent at one school. Yet this past six years at Caltech has transformed me from an “A” student, to a keen problem-solver, and finally, a critical thinker. For my intellectual growth, first I need to thank my advisor, Professor Zhen-Gang Wang. In addition to his impressive depth of knowledge and insights, as an advisor, he can always gauge the right amount of help and advice, and leave the rest to myself. It could be a little stressful sometimes: whenever I made some progress and felt that I can tackle one class of problems, the next task turned out to be even more challenging. Nonetheless, it is only through this process of excellence that I learn to enjoy doing research.

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