Acknowledgments

There were only two reasons to return to Groningen after a long journey around the world: the chance to graduate under the supervision of Prof. Erik van der Giessen and the appealing subject of this PhD research, as I had read in the proposal. Once settled in, I started this project with a steep learning curve on the biology of influenza viruses and on the intricacies of molecular dynamics simulations. Inexperienced as I was with these kinds of simulations, a struggle with unexpected results from various force fields followed, combined with challenges such as how to correctly setup the plethora of parameters and how to reach sufficient sampling. A link with our experimental collaborators seemed many length-scales away. So, the question whether I would ever produce enough results to write a thesis, among other doubts that are not uncommon among PhD students, has lingered in my mind for three and a half years. However, starting at the end of the second year, the hard work started to pay off and from then on, a research subject got synthesized into a manuscript each year. Moreover, the efforts spent in literature research culminated in two literature reviews. This ultimately led to that moment of relief when you know that you will finish it; you only need to do it. And I did it; but not without the help, guidance, inspiration and support that I got from a number of people that I would like to acknowledge here.

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$$\sum_{0}^{\infty} \omega,$$

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