Finally, it is done. From here on, physics mode is off, no more checking every sentence for its correctness, no more doubts if every statement made is defensible. From now on, just free-flow writing to thank the people that have been involved at any one stage in finishing this dissertation. Then again, it seems to be a habit that people try to read in between the lines, trying to find out what was really meant. Well, don’t bother, there isn’t anything there. Even though this whole project has taken much much longer than expected or necessary, the only person responsible for that is me.

Now, where to start? As said, it has taken forever to finish this thesis and many people must have been desperate over the years but still have been supportive when I still didn’t want to give up and continued doing things my way. Special thanks therefore has to go Giovanna, Jaap, Joop, Rene, Maarten, Jan, Teus and my parents and parents in law. Giovanna, my wife, had to stand all my mood swings, desperations and endless delays. As she rightly remarked, I had to be really desperate to prefer cleaning the house over working on my thesis. Jaap always had good ideas on any subject and was the solid rock during the experiment. Maarten was so kind to become my thesis adviser and read the whole manuscript very carefully. Jan found me (more than one) thesis adviser and helped me, way earlier, getting started with the first chapter with many useful suggestions. Teus has been most helpful in getting me past, ever more vigilant, CERN security guards (among other things). Till this day though, I don’t quite understand what they are guarding us from. As I had to explore other options, I found many ways of entering CERN. My parents-in-law kept me watered and fed during the stressful times that we were both very busy. My parents, have never given up hope that I would finish my PhD and finally get to see the result of all the support they have given me and Giovanna.

There is of course more to a PhD than writing the final dissertation. The most enjoyable part of this PhD project has been all the actual work before. I want to thank all those people I have worked with in CHORUS, both at CERN and at Nikhef. Special mention should go though to several people; in more or less chronological order. Joop, who hired me — I hope he doesn’t regret it — and who always brought a lighthearted spirit to work (plus one orange and one appel). Jan and Kees, who introduced me to CERN and its surroundings. Jan and Bernardine later took me sailing to places I had never seen in the Netherlands and made my time in Amsterdam more pleasant. However, I still refuse to get on a horse as long as they don’t come installed with an emergency break. If a horse would be only half as stubborn as me, who know where we end up.

During the honeycomb project I have worked with much pleasure with both Martin and Peter to get the electronics working in record time. Not only are they very meticulous
electronic engineers, they also are very pleasant people to work with (and not only for the constant supply of liquorice). We also got to see the total solar eclipse through the one gap in the clouds.

In the microscope project, I have enjoyed immensely working with Ioannis, Bart and Piero. Piero is a never ending source of new and good ideas. Ioannis is always happy to join software design bashing. Bart has dug up lots of interesting material and could always be found for helpful discussions. I’ve learned from Bart that there is usually a mathematical correct way of doing any analysis and had many discussions on whatever subject one can think off.

With Maarten de Jong, Maarten Litmaath, Rolf and Oliver, I had overlap in several projects during our time at CERN; it was always a pleasure to work together. With Rolf I had many philosophical discussions, late at night at Nikhef, which made the time there more bearable. Rolf often had a very different viewpoint from me, which makes you reexamine your own beliefs and assumptions. Maarten Litmaath is a very useful computer expert to have around at any time.

There is of course also a life outside work. I have enjoyed the many barbecues with Bart & Gaelle and Ioannis & Katarina. I remember very fondly the ridiculous hikes Aimo and I have undertaken. We must have been nuts, but lets do it again soon. Then there are all my opponents at the various squash clubs, who have kept me sane by letting me destroy a squashball instead of something else and with whom I many interesting discussions: Nal, Jane, Rene, Mark B., Ivan, Job, Wim, Jim, and many others. Last, but not least, there are my close friends, Maxime, Peter, Mark B., and M², who are always willing to help out.

And finally, very big thanks again to Gio, without her, this thesis would never have existed within my lifetime. Thank you very much for always being there.
Op 7 februari 1969 ben ik geboren te Maastricht. Al op de lagere school waren de exacte vakken een aantrekkingspunt en dat is nooit veranderd. In de derde klas van het Gymnasium op het Henric van Veldeke college te Maastricht, kwam ik via de computerclub van school in aanraking met één van de eerste thuiscomputers, de TRS80 met 1 kilobyte geheugen. Een “upgrade” naar 2 kilobyte kostte maar 500 euro, maar dan kon je wel space-invaders (firebird) spelen. Vanaf toen waren computer hardware en software een zeer intensieve hobby.

Na vrolijk het Gymnasium te hebben doorlopen, ben ik in 1987 technische natuurkunde gaan studeren in Eindhoven. Tijdens mijn studie heb ik me geamuseerd door elektronen boven vloeibaar helium te laten zweven, squash te leren, en ben ik afgestudeerd door te laten zien hoe lokale spingolven toch kunnen bestaan in een Knudsen-gas waar de atomen bijna niet meer met elkaar botsen.

In 1995 ben ik, via Nikhef, begonnen met mijn promotiewerk in het CHORUS experiment op CERN. Met mijn achtergrond van computer hardware en software, was het niet verrassend dat ik vooral bezig ben geweest met de ontwikkeling van elektronica en dataacquisitie software. Toen CERN zijn eigen emulsie scanning microscopen ging opzetten, ben ik me daarbij bezig gaan houden. Na lange perioden op CERN, onderbroken door verblijven van enkele maanden in Amsterdam, heb ik een postdoc positie op CERN aangenomen om verder te werken aan de microscopen en emulsie analyse. Dit proefschrift bevat onderwerpen van zowel mijn promotie als mijn postdoc periode.

Ik ben nu op zoek naar een nieuwe baan. Aangezien mijn interesse enigszins verschoven is richting moleculaire biologie, zoek ik op dit moment naar iets in de bio-informatica. Maar een heel ander veld van werk sluit ik niet uit.