Acknowledgments

This book is the final result of a long path, consisting of good and also difficult moments, which definitely enriched me from both a scientific and a human point of view.

During this period I have never been alone; many people supported me in many ways, sometimes only with their presence. I wish I could thank everyone, but I’m afraid that this task is impossible to be achieved in few pages. I hope you will forgive me if I have forgotten someone.

I would like to start by thanking Prof. Maria Antonietta Loi, my supervisor. Maria, in these last years you have been a constant guidance for my research, showing me what it means being a scientist. Thanks to you I had the possibility to enjoy the experimental life in the lab and the possibility to collaborate with many valuable people.

During the last year I was facing a difficult time, since I had to finish my thesis while I was already working in Eindhoven. It was a period in which this new life setting could easily distract me from completing my thesis project in a reasonable time. But you Maria helped me to finalize my work, constantly pushing me and letting me feel the importance to complete this path. Thank you!

A sincere acknowledgement goes to Prof. Petra Rudolf, Prof. Giovanni Bongiovanni and Prof. Anne-Sophie Dewus, for accepting to be part of my thesis reading committee and for giving me valuable input to improve the manuscript.

Petra, thank you for welcoming me in Groningen. I still remember the first time we met, it was in Sardinia. The chats with you inspired me a lot and it is also thanks to you that I decided to start my PhD in Groningen.

Katja, we shared together a lot of my research. It was a pleasure to discuss the topics of our FOM project with you, because of your incredible knowledge and your kindness. Thanks a lot for encouraging and supporting me.

Dear Albert, I think I do not exaggerate if I say that a big part of this thesis is the product of long hours in front of the microscope with you, debating the results with such a young enthusiasm. Thank you from the bottom of my heart for being so precious for my research. I definitely could not achieve these nice results without you.

Andrea, together we implemented the microscope setup and we worked on several experiments. You taught me about the correct attitude inside a lab. It was a pleasure to have you in the group during your scientific missions. I will always be
grateful to you; also for the precious advices (not only from a scientific point of view) you have been giving me.

A special thanks goes to Arjen (the lunches with you in the coffee room were the most amusing ever), Jan and Frans for your technical support and for the enjoyable chats together.

These years would have been for sure less happy without all the friends who were standing by me.

I need to start mentioning Rieks and Tineke, my well known “Dutch parents”. You took care of me from the very first day treating me like your own daughter. You made me feel part of the family, a sister for Emile, Daniel, Jessica and Myrta. I LOVE YOU!

Dorota and Filippo, you were among the first to welcome me in Groningen and now we are again colleagues in Eindhoven!! Your friendship means a lot to me. Thank you for all the love you showed me and for standing by me in all these years.

Francesco, Catarina and Rosa, there are no words to express my affection for you. You were with me when I really needed to have a family in Groningen and you stood by me in more difficult times. I will never ever forget. Not to mention the nice time playing with you Fra… I hope we can do some music together in the future and I can be a big auntie also for the new family member Sarina!

Claudia and Ilias, thank you for standing by my side. We met in Groningen and life brought us close again! We shared many nice and bad moments, and as Ilias wrote already once, this I think means being real FRIENDS. Ilias, thanks a lot for your help and for all the suggestions (for the cover amongst other things) and for letting me think that everything will be fine! Cla, together we shared a lot of research, which produced a few nice papers! Thank you also for being my paranimph and supporting me in the last phase of my PhD, for me this is really an honor.

Kri, you have been a very nice colleague and also a friend. We really had a lot of funny chats!! I hope that the distance will not stop us having fun together and by the way we are still waiting for you here in the “South” for a nice reunion.

Simone, let me tell you: you are incredible! You are not only a very smart guy; you are also a very nice person. I will never forget the endless laughs with you (how could I forget your definition of my pajamas in San Francisco…) …and our cinema evenings. At certain point it became a ritual.

A particular thanks goes to Teresa! I only got to know you two years ago, but since then we became almost sisters! Next to you, it is impossible to get bored. I am waiting for the next trip together!
Dear Nana, thank you so much for sharing your amazing musical talent with me and for being such an inspiration for me!

In my group I had the chance to collaborate with many people and create sincere friendships.

I really need to start with my other 3 paranimphs (yes, I am probably the first person ever who had multiple paranimphs!!) Widi, Lai-hung and Vlad! I really love you guys (please do not blush)! It is literally impossible to express my gratitude for all the help and the support you provided me, in particular in the last part of my PhD and I’m proud to have you next to me for this important event!

Thanks also to all the other members of the group: Artem, Insan, Mark, Jorge, Daniel, Simon, Musty, Samson, Hong-hua and Je.

Many other friends shared with me great moments! Gert-Jan and Davide B., the evenings at your balcony were really amusing, thank you very much! Gert, I think we can still improve our songs!! Johan, the evenings playing music with you made me think that living in Holland is not bad at all! Such memories! And Martijn, Alex, Oksana, Niels, Paul, thank you all for sharing with me a part of your life!

Herman, Hylke, we are now much closer and it is wonderful to have you around!! Another beer please (and an orange juice for me!)

There was also a warm Italian community enlivening my Sundays with delicious food: Luca, we shared a lot, starting from the love for classical music to the deepest thoughts regarding life. You are my FRIEND!

Patrizio (are we still in business??), Silvia and Giovanni (the three of us are really glad for your participation in our life!!), Lele, Andrea and Lucia, Fabio, we have had such a fun. Thank you all!

Many thanks also to Davide and Stefano, my great flat mates! I really hope life will bring us together again.

I would like also to thank all my Projection group colleagues at ASML! I felt like a part of the group from the very beginning. Special thanks go to Jaqueline, Samy, Pavel, Jan and Krijn! You make me going to work with a smile!

Claudine and Chris, you are now family for me and I feel a strong affection between us. I look forward to what is coming.

Un sentito ringraziamento va alla mia famiglia, che non ha mai mancato di farmi sentire tutto il suo supporto e l’affetto nonostante la lontananza: i miei fratelli Giampiero, Fabrizio e Dalia, i miei nipotini Samuele e Giampiero, mia madrina Sara e nonna Giustina. Impossibile citare per nome tutti gli zii, zie e cugini che mi hanno mostrato calore ad ogni rientro a casa. Grazie infinite a tutti!

Mamma, a te va il piu’ profondo dei ringraziamenti per tutto quel che hai fatto per me, DA SEMPRE. Con la tua forza hai reso possibili tante cose…ti adoro!
Un pensiero lo voglio dedicare poi a mio padre Giampiero, che sono certa sarebbe molto felice.

And Pieter, you made my life a better life, a full life. I will never stop thanking you for being there for me and supporting me with your love and your beautiful smiles.