Acknowledgments

This research has been carried out in the framework of a Socrates-Erasmus program in the Delft University of Technology, Faculty of Civil Engineering and Geosciences.

My first word of thanks goes to my supervisors Sonia Fernández and Harm Askes who made this exchange possible and offered me their help to carry out this research. I’m greatly indebted to Inna Gitman for her daily support and advice and I would like to thank the staff in the structural mechanics department, and specially L.J. Sluys, M. Stroeven and F.P.X. Everdij for their unselﬁsh help.

I must express my best gratitude to my roommates Fabian Greiﬀ and Aloysius Chen Yankai for making possible a cultural exchange which is, without any doubt, one of the most important heritages of this experience. I would like to thank also Jordina Boada, Marta Auleda, Oriol Serra, Nadine Boêve, the Rijswijk neighbours, the Spanish crowd and the Architecture crowd for their valuable friendship during all my stay in the Netherlands.

A special word of thanks goes to those colleagues and friends who have been next to me during my career in Barcelona, in particular Jordi Perelló, Anna Berenguer, Oriol Robleda, Joan Carles Casado, Álvaro Sánchez, Jordi Jordan, Yoli, Raquel, Sussana, Maria, Txell, Jenny, les Laies, Eli, Vanesa,.., and many others.

I would like to thank as well those people who coordinate and work for these exchange programs allowing many students to live this unique experience.

Finally, my last word of thanks goes to my family who have been always next to me, giving me all kinds of support and courage.