## Acknowledgments

At the end of this dissertation, I would like to express my gratitude to all the people who have helped me during my Ph.D studies.

First of all, I would like to thank my supervisor Prof. Paolo Nobili, for his assistance and encouragement during these years.

Thanks to Dr. Chefi Triki and to all the other people in the research group of Operations Research at the University of Lecce for many fruitful discussions and suggestions.

My gratitude goes to Prof. Yves Pochet and Prof. Laurence Wolsey for their kind hospitality during my stay in Louvain-la-Neuve and for their assistance in my research activities at CORE.

Thanks to Prof. Mohamed Haouari for giving me the opportunity of collaborating with him and for his friendly hospitality at the Ecole Polytecnique de Tunis.

Thanks to Dr. Roberto Montemanni for many fruitful discussions.

Thanks to all my colleagues at the Department of Mathematics in Lecce and to all people that I met in the laboratory of Tunis and at CORE.

And, finally, I would like to thanks for their patience and support Fabrizio and my family.

Valeria Leggieri April 2007