Acknowledgments

The authors thank the many Numerical Analysis students at the University of Tennessee who endured countless versions of this text. They provided valuable feedback on the stylistic structure of the book and also found numerous typos, errors, and blunders. We hope that most of the inaccuracies have been amended. For those that remain, we are solely responsible.

We acknowledge support from the National Science Foundation, which supported us in our research during the writing of the book. This project represents an attempt on our part to make the subject of numerical analysis more accessible, from the theoretical point of view, and more interesting to a broader mathematics audience, especially those who might have thought that the subject lacks rigor and beauty. At the same time, much of what we have learned at the frontiers of research in numerical partial differential equations and scientific computing has made it into the textbook.

AJS: I wish to thank all the numerical analysis instructors that I have had throughout the years. In particular, and in chronological order, my MSc advisor, V.G. Korneev; my PhD advisor J.-L. Guermond; V. Girault; and my postdoc mentor, R.H. Nochetto. All the good things I contributed to this book are because of the ideas and "way of doing business" that they taught me. All the bad ideas that remain are due only to the fact that, as everyone knows, I am very stubborn. I also wish to thank all the other numerical analysts who had the misfortune to cross paths with me at some point. I thank also Steve M. Wise for bringing me along on this journey, and for his patience. I am glad we were able to stay friends after completing this project. Finally, I thank my parents for supporting me in every step of my professional formation. Without their support I would not have made it to where I am today.

SMW: I must thank my numerical analysis teachers and advisors, Chris Beattie and Layne Watson, at Virginia Tech. I got a really great foundation from them. From my PhD advisor, Bill Johnson, a materials scientist by training, I learned to appreciate the power of computing in scientific exploration. The equations that I learned from Bill still motivate and drive my numerical analysis research 20 years later. My postdoctoral advisor, long-time collaborator, and friend, John Lowengrub, taught me a lot about the intersection of practical scientific computing, modeling, and numerical analysis. I fortunately learned a valuable lesson early in my career; namely, that I should not be afraid to admit that I do not know something. This enabled me to learn from those around me and helped to fill in the gaps in my

education, which are still considerable. Specifically, my colleagues and collaborators, Xiaobing Feng, Ohannes Karakashian, Cheng Wang, and, of course, Abner J. Salgado, have given me a great on-the-job education. I am so grateful that Abner agreed to go on this journey with me. He is the smartest person I know, and I have learned so much from him. It has been a pleasure. I thank my wife, Nicole, and children, Jude and Cece, for giving up a lot of family time while I worked on this project over the last few years. I love you so much. Finally, I dedicate my work on this book to the memory of my dear mother, Mary Ann Wise. I love you, miss you, and think of you every day.