

Chapter 20

Closing Remarks

The book covered the foundations of the Finite Volume Method, a method that is currently considered to be one of the most reliable and efficient methods for the simulation of flow and heat transfer problems. It is, thus, not surprising that it is the main numerical technique used in CFD whether in leading commercial codes or in open source libraries and frameworks.

While focused on scalar transport and single incompressible and compressible fluid flow problems, the material presented in this book is quite substantial, ranging from fundamental issues related to the numerics of the FVM to implementation details and CFD applications. All topics were introduced from first principles but were treated thoroughly leading in many cases to covering advanced concepts.

Much of the success of the FVM is attributable to a very active community of developers who have generously shared their techniques and discoveries in journal articles, conference proceedings, and books. Nonetheless it all started with a handful of researchers who were instrumental in setting the foundations for the method. The following is a very short and incomplete list of those early contributors whose publications were, at some time, the basic teaching documents for the method, at least for us the authors. In some way their combined work provided us with much of our early insight into the method, as such we wish to acknowledge their contributions:

B. Spalding, S. Patankar, G. Raithby, B.P. Leonard, F. Harlow, I. Raad, A. Gosman, J.P. van Doormaal, S. Muzafferija, I. Demirdzic, M. Peric, G.E. Schneider, P. Galpin, S. Majumdar, C.W. Hirt, C. Hirsch, and V. Voller.

Finally as with many endeavors, there is space for much improvements. Thus it is our hope that you will share with us your ideas and suggestions on how to make the book with the associated codes a better and more useful educational and support tool.