David Gottlieb
Ford Foundation Professor of Applied Mathematics
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Dedication

Spectral methods were introduced in the 70s, and since then have become an indispensable computational tool in science and engineering. **David Gottlieb** was arguably the key person who during the last three decades, led the construction, analysis and implementation of spectral methods in modern algorithms. The impact of his research activity has been felt in various branches of applied sciences.

David was born in Tel-Aviv in 1944. He earned his Ph.D. in 1972 under the guidance of Professor Saul Abarbanel. After a post-doctoral appointment at MIT, he returned to Tel-Aviv University where he eventually served as the Chairman of the Department of Applied Mathematics during 1983-1985. He accepted an offer to join Brown University in 1985 where he remained for the rest of his career, and was the Chair of the Division of Applied Mathematics during 1996-1999. Among his many distinctions, David's achievements were recognized by honorary degrees from Paris VI and Uppsala University, and his election to the US National Academy of Science.

David was a leading figure in Applied Mathematics. The article below by Bertil Gustafsson describes the fundamental contributions that David made to Numerical Analysis. The article by Sigal Gottlieb, David's daughter and fellow mathematician colleague, provides a brief overview of one segment of these contributions — David's work on the resolution of the Gibbs Phenomenon. It was in this context that David brought me into his circle of research. I first met David as a teaching assistant when I was a student in 1971, but our scientific collaboration began in 1985. He was the Chair and I was a young faculty who had just returned to Tel-Aviv University, and we wrote our first joint paper on the spectral recovery of discontinuous data. This was the starting point. We remained friends for life.

David was a true scholar: beyond his legacy in Applied Mathematics, he had broad knowledge of history (his earlier passion before he turned into Mathematics) and he had deep commitment to Jewish studies. He was a devoted mentor to his students and young colleagues, two of them, Wei Cai and Alina Chertock are the Editors of this special volume. And above all, he was devoted to his family.

David was brave: though his body failed him, his spirit remained healthy all along.

But it would be incomplete to limit David's profile to a description of him as a scholar,

as a mentor and as a family man. For David had a unique, distinctive grace, he was a real "mensch" who left his mark on so many lives. He elevated the spirit of those who encountered him and in return, he was loved by all.

Communications in Computational Physics (CiCP) is a main outlet for publications of high scientific value, in the general area of computational modeling of physical problems. **David Gottlieb** was a leading figure of this area until his death in 2008. This special CiCP issue is dedicated to him, as a modest tribute to his work and to the impact he had on so many lives in the mathematical community and beyond.

Eitan Tadmor
University of Maryland
Associate Editor of CiCP