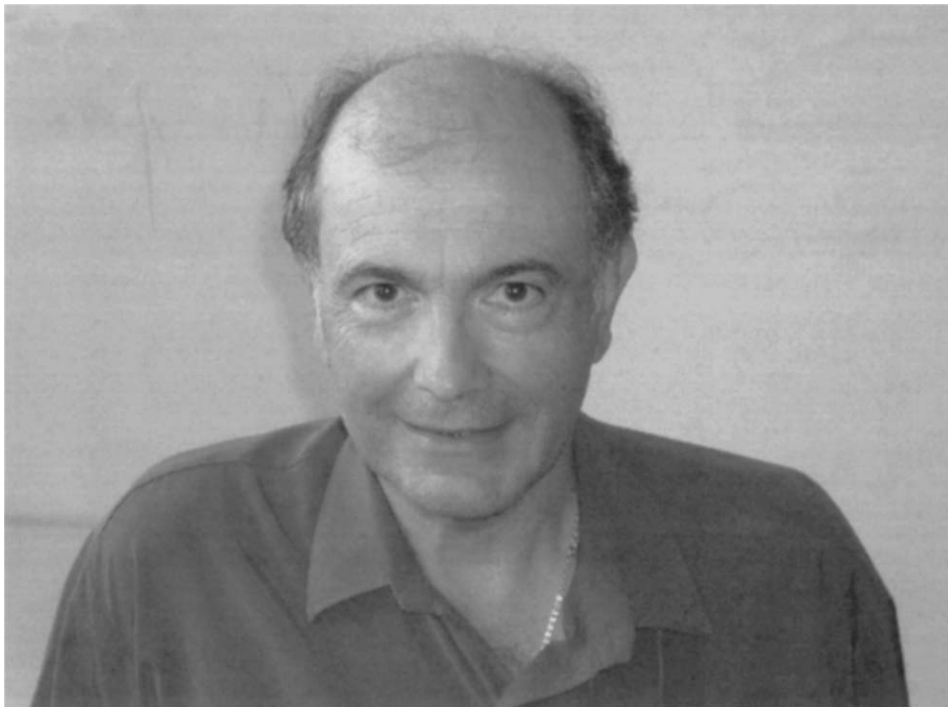


Preface

Special Issue in Tribute to Robert Anthony Antonia



Bob Antonia was born on July 2, 1943 in Egypt. During the Suez crisis, his family spent two and a half years in Bayonne (France), where Bob started the first year of the French Baccalaureate. The family migrated to Australia in 1958. Bob graduated with a B.E. in 1963, an M.Eng.Sc. in 1965 and a Ph.D. in 1969, all from the University of Sydney. R.E. (Sam) Luxton was his Ph.D. advisor. After a year of postdoctoral work at the Imperial College of Science and Technology, London, with Peter Bradshaw, Bob returned to Sydney as lecturer in the Department of Mechanical Engineering, where he soon became a senior lecturer and remained until 1976. He then joined the Department of Mechanical Engineering at the University of Newcastle as Professor at a young age of 33. He served his department as Head on several occasions, and remained as its teaching faculty until 2000. He has now retired from active teaching but continues his research unabatedly at his University as an ARC Fellow, and supervises graduate students and postdoctoral fellows.

Bob is best known for his work on small-scale structure of turbulence and passive scalars, subjects to which he has contributed extensively. His work has encompassed both laboratory and geophysical flows; in particular, he pioneered systematic measurements of high frequency phenomena in the atmosphere and the sea-water interface. With uncanny ability to see open problems, he has extracted from the similarity theory of the Soviet school, spearheaded by A.N. Kolmogorov, a number of logical consequences, and capitalized on the need to subject them to rigorous experimental tests. He has supervised some 25 graduate students and 20 postdoctoral fellows from many countries, and built strong ties to turbulence research groups in Marseilles and Rome, with whom he continues to exchange visitors. Those of us who have known Bob for many years recognize in him an enormous streak of optimism in the value of doing science with single-minded tenacity, without yielding to personal adversities. He has not only raised the level of science in his university but also among his collaborators, by holding them to the same high standards of hard work to which he continues to hold himself without exception.

To mark Bob's sixtieth birthday, a number of his friends and colleagues have come together to present this collection of scientific papers. In some rough sense, these papers cover areas to which Bob himself has contributed, though with a slant towards passive and reacting scalars. The papers have undergone the journal's standard review process. We thank the authors of these articles for their cooperation and the editor-in-chief, Professor Frans Nieuwstadt, for graciously making available the journal's pages as a tribute to Bob.

We take this opportunity to wish Bob Antonia a very profitable research career for many years to come, and him and his wife, Alexis Antonia, many years of happy life.

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