

## Preface

The 2017 Geophysical Fluid Dynamics Summer Study Program theme was *Ice-Ocean Interactions*. Three principal lecturers, Andrew Fowler (Oxford), Adrian Jenkins (British Antarctic Survey) and Fiamma Straneo (WHOI/Scripps Institution of Oceanography) were our expert guides for the first two weeks. Their captivating lectures covered topics ranging from the theoretical underpinnings of ice-sheet dynamics, to models and observations of ice-ocean interactions and high-latitude ocean circulation, to the role of the cryosphere in climate change. These icy topics did not end after the first two weeks. Several of the Fellows' projects related to ice-ocean dynamics and thermodynamics, and many visitors gave talks on these themes.

The first ten chapters of this volume document these lectures, each prepared by pairs of the summer's GFD fellows. Following the principal lecture notes are the written reports of the fellows' own research projects. This summer's fellows were:

- Robert Fajber, University of Toronto
- Margaret Lindeman, Scripps Institution of Oceanography
- Madeleine Youngs, Massachusetts Institute of Technology
- Federico Fuentes, University of Texas-Austin
- Thomasina Ball, University of Cambridge
- Jessica Kenigson, University of Colorado-Boulder
- Eric Hester, University of Sydney
- Agostino Meroni, University of Milan-Bicocca
- Guillaume Michel, Ecole Normale Supérieure
- Earle Wilson, University of Washington
- Madelaine Gamble Rosevear, University of Tasmania

The 2017 Sears Public Lecture was given by Professor Richard Alley (Pennsylvania State University) on *Ice Sheets and Sea Level Rise*. For the conclusion of his exceptional presentation Professor Alley played guitar and sang a lively tune about climate change. His talk drew a big crowd of GFD folks and Woods Hole locals who kept the conversation going at the reception afterwards.

Claudia Cenedese and Mary-Louise Timmermans were co-directors, and the steady-stream of visitors, plus large number of long-term staff members around for the summer, ensured that the fellows never lacked for guidance. Andrew Wells (Oxford) was awarded the GFD Distinguished Scholar Award for outstanding contributions to mentoring and research in the program.

The various laboratory experiments were facilitated by able support from Anders Jensen who had the challenge of making icebergs of different shapes and sizes. Julie Hildebrandt and Janet Fields kept the whole program running smoothly with efficient administration in all aspects. We continue to be indebted to WHOI Education, and are grateful for the opportunity to share scientific ideas on the porch at Walsh, the picnic tables on the lawn, and in the bustle of Woods Hole village.