Int J Fract (2010) 165:139
DOI 10.1007/s10704-010-9537-y

PREFACE

Foreword

Per Ståhle

Published online: 24 August 2010

To honour the memory of Knut Bertram Broberg, and to promote continuing work on the many ideas which he shared so generously with students and colleagues throughout his lifetime, a symposium was arranged at University College of Dublin in 2007. The idea was to create an informal atmosphere, and to keep the number of participants fairly low. This has now become a bi-annual symposium with the highlight being one or two lectures by outstanding world-class scientists. The second Broberg Memorial Symposium was arranged by the Lund Institute of Technology in Sweden (LTH) in May 2009. The venue of the conference was a renaissance castle, Trolleholm, that was put to our disposal by the courtesy of the Rector of LTH. Trolleholm was once the home of Sophia Brahe whose careful observations of planetary orbits later was used by Johannes Kepler to develop his laws of planetary motion. Keppler was at the time working as an assistant to Sophia's brother Tycho Brahe.

In this historical setting all together 40 scientists from Ireland, Sweden, USA, Denmark, Germany and Spain meet for the two day symposium. The presentations made in the castle library concerned problems of classical mechanics and were related to the broad variety of problems addressed by Bertram. Subjects included, stress waves, fracture mechanics, biomechanics, heat transfer, fluid mechanics, numerical and experimental methods, general continuum mechanics etc. Invited speakers were Professor A. Needleman, Brown University, Providence, USA, now at University of Northern Texas, and Professor K. Ravi-Chandar, University of Texas, Austin, Texas, USA. The plenary lecture of Needleman titled "Modelling the process region in ductile fracture" reviewed the current state of fracture mechanics and particularly how to understand the role of the process region. The plenary lecture of Ravi-Chandar, titled "Fragmentation of ductile materials" was based on some elegant experimental work on the dynamic fragmentation of aluminium pipes under internal explosive pressure. Mr. Anders Lundström, chairing the sessions has provided a review of a few selected lectures that can be found on the web page: www.bertrambroberg.eu. This special volume contains a collection of papers contributed by a few of the symposium participants.

A Bertram Broberg Memorial Fund has recently been established at University College Dublin (UCD) with generous support from a small group of Bertram's close associates. The goal of the Fund is not only to honour Bertram's memory through the biannual Symposia, but also to promote continuing work on the many ideas which he shared so generously with students and colleagues throughout his lifetime. The College of Engineering, Physical & Mathematical Sciences will hold an annual competition for the Bertram Broberg Memorial Medal to distinguish young researchers who have recently completed a Ph.D. thesis at UCD. A brief biography of Bertram Broberg is included in this special volume.

P. Ståhle (✉)
Lund, Sweden
e-mail: pers@solid.lth.se