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Fred Espen Benth
Giulia Di Nunno *Editors*

Stochastics of Environmental and Financial Economics

Centre of Advanced Study, Oslo, Norway, 2014–2015

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Preface

Norway is a country rich on natural resources. Wind, rain and snow provide us with a huge resource for clean energy production, while oil and gas have contributed significantly, since the early 1970s, to the country's economic wealth. Nowadays the income from oil and gas exploitation is invested in the world's financial markets to ensure the welfare of future generations. With the rising global concerns about climate, using renewable resources for power generation has become more and more important. Bad management of these resources will be a waste that is a negligence to avoid given the right tools.

This formed the background and motivation for the research group Stochastics for Environmental and Financial Economics (SEFE) at the Centre of Advanced Studies (CAS) in Oslo, Norway. During the academic year 2014–2015, SEFE hosted a number of distinguished professors from universities in Belgium, France, Germany, Italy, Spain, UK and Norway. The scientific purpose of the SEFE centre was to focus on the analysis and management of risk in the environmental and financial economics. New mathematical models for describing the uncertain dynamics in time and space of weather factors like wind and temperature were studied, along with sophisticated theories for risk management in energy, commodity and more conventional financial markets.

In September 2014 the research group organized a major international conference on the topics of SEFE, with more than 60 participants and a programme running over five days. The present volume reflects some of the scientific developments achieved by CAS fellows and invited speakers at this conference. All the 14 chapters are stand-alone, peer-reviewed research papers. The volume is divided into two parts; the first part consists of papers devoted to fundamental aspects of stochastic analysis, whereas in the second part the focus is on particular applications to environmental and financial economics.

We thank CAS for its generous support and hospitality during the academic year we organized our SEFE research group. We enjoyed the excellent infrastructure CAS offered for doing research.

Oslo, Norway
June 2015

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